

# Pontificia Universidad Católica del Perú

Facultad de Ciencias e Ingeniería



PONTIFICIA  
**UNIVERSIDAD**  
**CATÓLICA**  
DEL PERÚ

## ANEXOS

### **PROPUESTA DE ESTRATEGIA DE PRONÓSTICOS Y CONTROL AGREGADO DE INVENTARIOS CON DEMANDA PROBABILÍSTICA EN UNA EMPRESA IMPORTADORA Y COMERCIALIZADORA DE ARTÍCULOS PARA EL MANTENIMIENTO VEHICULAR**

Tesis para optar el Título de Ingeniero Industrial, que presenta el bachiller:

César Enrique Jahir Jeri Huamán

ASESOR: Ing. José Alan Rau Álvarez

Lima, Octubre de 2016

## INDÍCE DE ANEXOS

<b>Anexo 1. Tipos de Sistemas de Control .....</b>	<b>1</b>
<b>Anexo 2. Matriz de criterios para la clasificación ABC.....</b>	<b>3</b>
<b>Anexo 3. Herramientas estadísticas de estacionalidad.....</b>	<b>4</b>
<b>Anexo 4. Proceso de compras nacionales y Proceso de ventas .....</b>	<b>6</b>
<b>Anexo 5. Análisis estadístico de ventas – Minorista .....</b>	<b>8</b>
<b>Anexo 6. Análisis estadístico de ventas – Mayorista .....</b>	<b>9</b>
<b>Anexo 7. Volúmenes de importación según país de origen.....</b>	<b>10</b>
<b>Anexo 8. Análisis de costos por áreas funcionales.....</b>	<b>11</b>
<b>Anexo 9. Registro de ventas pérdidas 2014.....</b>	<b>12</b>
<b>Anexo 10. Proceso de análisis jerárquico .....</b>	<b>13</b>
<b>Anexo 11. Gráficos de control – Estadía promedio (meses) .....</b>	<b>14</b>
<b>Anexo 12. Normalización de ventas mensuales – Parche M-48 Everwinner .....</b>	<b>15</b>
<b>Anexo 13. Clasificación ABC Multicriterio .....</b>	<b>16</b>
13.1 Datos de Ingreso para la Clasificación ABC.....	17
13.2 Clasificación Criterio Frecuencia.....	23
13.3 Clasificación Criterio Valor .....	25
13.4 Clasificación Criterio Margen .....	27
13.5 Resultados de la Clasificación ABC Multicriterio .....	29
<b>Anexo 14. Estrategia de Pronósticos .....</b>	<b>34</b>
14.1 Estrategia para realizar análisis de pronósticos .....	35
14.2 Desarrollo de la estrategia de pronósticos para los artículos Clase A.....	36
14.3 Desarrollo de la estrategia de pronósticos para los artículos Clase B .....	39
14.4 Desarrollo de la estrategia de pronósticos para los artículos Clase C .....	43
14.5 Análisis de Estacionalidad usando Test de raíz unitaria con ADF.....	44
14.6 Resultados de los pronósticos.....	45
<b>Anexo 15. Análisis gráfico de estacionalidad .....</b>	<b>50</b>
<b>Anexo 16. Ajuste óptimo de estacionalidad empleando el Software MINITAB .....</b>	<b>51</b>

<b>Anexo 17. Pronósticos Estacionales</b> .....	52
17.1 Datos para realizar los pronósticos estacionales .....	53
17.2 Pronóstico estacional del PARCHE SCHRADER SBR1 .....	54
17.3 Pronóstico estacional del PARCHE VIPAL R-01.....	55
17.4 Pronóstico estacional del PARCHE VIPAL VD1 .....	56
17.5 Pronóstico estacional de la CAMARA 300-18 S&M TR-4 .....	57
17.6 Pronóstico estacional de la CAMARA 300-18 SWALLOW TR4 .....	58
17.7 Pronóstico estacional de la CAMARA FR-13 SUPER BULL PREMIUN TR-13 .....	59
17.8 Pronóstico estacional del PARCHE DC110-30 NINGBO .....	60
17.9 Pronóstico estacional del PARCHE SCHRADER SBMC2 .....	61
17.10 Pronóstico estacional del PARCHE SCHRADER SBR0 .....	62
17.11 Pronóstico estacional de la CAMARA ER-12 SUPER BULL PREMIUN TR-13 .....	63
17.12 Pronóstico estacional de la CAMARA FR-14 SUPER BULL PREMIUN TR-13 ... ..	64
17.13 Pronóstico estacional de la CAMARA KR-15 SUPER BULL PREMIUN TR-13.....	65
17.14 Pronóstico estacional de la CAMARA KR-16 SUPER BULL PREMIUN TR-13.....	66
17.15 Pronóstico estacional del PARCHE M-48 EVERWINNER.....	67
17.16 Pronóstico estacional del PARCHE SCHRADER SBMC3 .....	68
17.17 Pronóstico estacional del PARCHE SCHRADER SBR2.....	69
<b>Anexo 18. Reporte Pronóstico Estacional Multiplicativo - Parche Schrader SBR1</b> .....	70
<b>Anexo 19. Ajuste de tendencias para selección de método causal a mediano plazo</b> .....	71
<b>Anexo 20. Sistema de Reabastecimiento Conjunto (SRC)</b> .....	73
20.1 Datos para realizar el análisis de Reabastecimiento Conjunto .....	74
20.2 Artículos de origen Nacional.....	78
20.3 Artículos de Puerto Quingdao .....	80
20.4 Artículos de Puerto Nhava Sheva.....	81
20.5 Artículos de Puerto Santos .....	82
20.6 Artículos de Puerto Ningbo.....	84
20.7 Artículos de Puerto Busan.....	85
20.8 Artículos de Puerto Jakarta.....	87
20.9 Resultados de la aplicación del SRC .....	88

<b>Anexo 21. Tabla K</b> .....	94
<b>Anexo 22. Curva de Intercambio</b> .....	97
22.1 Datos para realizar la Curva de Intercambio .....	98
22.2 Curva de Intercambio para artículos clase A.....	103
22.3 Curva de Intercambio para artículos clase B .....	105
22.4 Curva de Intercambio para artículos clase C.....	108
<b>Anexo 23. Análisis de propuesta de mejora</b> .....	110
23.1 Consolidado de las propuestas de mejora.....	111
23.2 Situación actual – Parche Schrader SBR1.....	115
23.3 Simulación de propuesta – Parche Schrader SBR1 .....	116
23.4 Estimación para cronograma de compras – Parche Schrader SBR1 .....	117
<b>Anexo 24. Análisis del impacto global de propuestas</b> .....	118
24.1 Desempeño de la gestión de inventarios actual.....	119
24.2 Desempeño de la gestión de inventarios propuesta.....	124
24.3 Niveles de existencias de la gestión de inventarios propuesta .....	128
<b>Anexo 25. Análisis económico</b> .....	133
25.1 Costos relevantes de la política actual.....	134
25.2 Costos relevantes de la política propuesta.....	135
25.3 Inversión del proyecto.....	139
25.4 Resultados de la evaluación económica .....	140

## Anexo 1. Tipos de Sistemas de Control

A pesar de existir gran número de sistemas de control de inventarios probabilísticos, hay cuatro que son los más comunes de los cuales su pertinencia y ventaja respecto a otro será determinado en base al contexto en el cual se implemente. Se hace hincapié en que se tratarán solo los tipos coherentes con el sistema de revisión periódica, por lo que los sistemas  $(s,Q)$  y  $(s,S)$  no se explicarán dado que son sistemas de control continuo. La notación básica que se empleará será la siguiente:

- $s$  = Punto de reorden (nivel de inventario efectivo para el cual deba emitirse un pedido)
- $Q$  = Cantidad a ordenar en cada orden de compra
- $S$  = Nivel máximo de inventario hasta el cual debe ordenarse

### Sistema $(R,S)$

Este sistema de control periódico, también conocido como el sistema de ciclo de reposición, se encuentra a menudo en organizaciones que no utilizan control sistematizado de los inventarios. La principal ventaja de este método es la de permitir el control coordinado de diversos ítems relacionados entre sí. El nivel máximo de inventario ( $S$ ) puede ser ajustado fácilmente si el patrón de demanda tiende a cambiar con el tiempo, lo cual resulta conveniente para patrones de comportamiento con tendencia pronunciada. Por otra parte, su principal desventaja radica en que requiere de un nivel de inventario de seguridad mayor para un mismo nivel de servicio en comparación con los sistemas continuos de control. El inventario de seguridad deberá cubrir fluctuaciones de demanda para un tiempo igual al período de revisión  $R$  más el lead time  $L$ . Este sistema también opera bajo ciertos supuestos, a saber:

- El ratio de demanda promedio varía poco en el tiempo.
- La probabilidad de tener demanda igual a cero entre revisiones sucesivas del inventario es muy pequeña; por lo tanto, se asume que cada vez que se revisa el inventario, se ordena un pedido.
- El tiempo de reposición se asume constante.
- Los costos unitarios de falta de inventario son tan altos que en un procedimiento práctico el nivel promedio de órdenes pendientes (para el cliente) es muy pequeño comparado con el nivel promedio del inventario a la mano. Esto es equivalente a decir que estos sistemas son adecuados para niveles de servicio altos, lo cual es lo deseado en la práctica.
- Los errores de pronóstico tienen una distribución normal sin sesgo, con una desviación estándar sobre el intervalo de revisión más el Lead Time,  $R + L$ .
- Los costos de control del sistema no dependen de la magnitud de  $S$ .

Una observación importante radica en el hecho de que para este sistema la protección del inventario de seguridad debe darse para un período de tiempo igual a la suma del lead time y el intervalo de revisión del inventario, o sea para el período  $R + L$ . Además, es conveniente adicionar cierto porcentaje al costo de ordenamiento  $A$ , incremento ocasionado por la revisión del inventario. Por esta razón, la notación cambia de acuerdo con los siguientes parámetros:

- $A'$  = Costo fijo de ordenamiento incrementado en el costo de revisión del inventario, en \$/pedido.

- $R$  = Intervalo de revisión pre-especificado (o calculado con base en el  $EOQ$ ), en unidades de tiempo.
- $S$  = Nivel máximo de inventario hasta el cual se ordena, en unidades.
- $\hat{x}_{R+L}$  = Demanda pronosticada sobre un intervalo de tiempo igual a  $R + L$ .
- $\hat{\sigma}_{R+L}$  = Desviación estándar estimada de los errores de pronósticos sobre un intervalo igual a  $R + L$ .
- $k$  = Factor de seguridad
- $G_u(k)$  = Función especial de la distribución normal  $N(0,1)$

$$G_u(k) = \int_k^{\infty} (u_0 - k) \frac{1}{\sqrt{2\pi}} e^{-u_0^2/2} du_0$$

- $SS$  = Inventario de seguridad, en unidades.
- $P_2$  = Fracción específica de demanda satisfecha directamente del inventario a la mano. También conocido como nivel de disponibilidad.
- $B_2$  = Fracción estimada del costo de faltante.

Manteniendo los conceptos del lote económico de compra, se tienen las siguientes fórmulas relevantes:

- Intervalo de revisión  $R$ :

$$R = \sqrt{\frac{2A'}{Dvr}}$$

- Desviación estándar de la demanda sobre el tiempo de reposición más el intervalo de revisión:

$$\hat{\sigma}_{R+L} = \hat{\sigma}_1 \sqrt{R + L}$$

Donde  $\hat{\sigma}_1$  representa el error del método de pronóstico empleado.

- Demanda pronosticada sobre el tiempo  $R + L$ :

$$\hat{x}_{R+L} = d(R + L)$$

Donde  $d$  es la demanda media pronosticada en la misma unidad de tiempo que  $R$  y  $L$ .

- Función especial de la distribución normal  $N(0,1)$ :

$$G_u(k) = \frac{DR}{\hat{\sigma}_{R+L}} (1 - P_2)$$

Donde  $DR$  reemplaza a  $Q$ , pues el tamaño de pedido es variable en este sistema.

- Nivel de stock de seguridad  $SS$ :

$$SS = k\hat{\sigma}_{R+L}$$

- El valor máximo de inventario  $S$ :

$$S = \hat{x}_{R+L} + k\hat{\sigma}_{R+L}$$

- El costo total relevante (TRC) se determinará de la siguiente forma:

$$TRC = \frac{A'}{R} + \left( \frac{DR}{2} + k\hat{\sigma}_{R+L} \right) vr + \frac{1}{R} (B_2 v) \hat{\sigma}_{R+L} G_u(k)$$

Anexo 2. Matriz de criterios para la clasificación ABC

Criterios	Unidad de Medida	Entrada		Salida	
		Materias Primas	Repuestos	Fabricante	Comercializadora
Demanda/ Ventas Anual	unidades/año			X	X
Consumo/ Utilización Anual	unidades/año	X	X		
Inventario Promedio	unidades/año	X	X	X	X
Costo Unitario	\$/unidad	X	X	X	X
Volumen	m3/unidad	X	X	X	X
Criticidad	0, 1, 2, 3, 4, 5	X	X		
Costo Anual del Inventario	\$/año	X	X	X	X
Costo Anual Demanda/Ventas	\$/año			X	X
Costo Anual Consumo/Utilización	\$/año	X	X		
Tiempo de Entrega	unidades de tiempo	X	X		X
Tiempo de Producción por lote	unidades de tiempo			X	
Escasez	1, 2, 3, 4, 5	X	X		
Durabilidad	1, 2, 3, 4, 5	X	X	X	X
Sustituibilidad	1, 2, 3, 4, 5	X	X		
Reparabilidad	1, 2, 3, 4, 5		X	X	X
Número de Proveedores	Cantidad	X	X		X
Almacenabilidad	1, 2, 3, 4, 5	X	X	X	X
Tamaño de lote	Unidades	X		X	X

Fuente: Castro Zuluaga, Vélez Gallego y Castro Urrego (2011)

### Anexo 3. Herramientas estadísticas de estacionalidad

En este anexo se presentarán las herramientas estadísticas y econométricas empleadas para determinar la estacionalidad en una serie de tiempo como el de las demandas mensuales de los artículos estudiados.

#### Test de raíz unitaria

De acuerdo con Sargan y Bhargava (1983), una raíz unitaria es una característica de los procesos que evolucionan a través del tiempo y que puede causar problemas en inferencia estadística en modelos de series de tiempo. Un proceso estocástico lineal tiene una raíz unitaria si el valor de la raíz de la ecuación característica del proceso es igual a 1, por lo tanto tal proceso es **no estacionario**. Se parte del siguiente modelo:

$$X_t = \rho X_{t-1} + u_t$$

Donde  $-1 \leq \rho \leq 1$ . Si  $\rho=1$  se trata de un caso de raíz unitaria.

Las pruebas de raíz unitaria presentan una desventaja en cuanto al bajo poder de las mismas (la probabilidad de rechazar una hipótesis nula), por lo que en la aplicación de la misma se puede no rechazar una hipótesis nula falsa, concluyendo erróneamente que se trata de una variable con raíz unitaria. Este inconveniente se puede traducir en declarar una serie de tiempo como no estacionario, siendo la realidad otra.

#### Contraste de Dickey-Fuller aumentado

Con el fin de determinar las propiedades de estacionalidad de las series se pueden utilizar distintos procedimientos como contraste en la aplicación de la prueba de raíz unitaria, entre estos se encuentra el test de Dickey Fuller Aumentado (ADF), el cual es descrito por autores como Mahadeva y Robinson (2004) como más adecuado que el clásico dada la flexibilidad en el número de retrasos en la variable dependiente permisibles que permite validar un modelo a partir de la no autocorrelación, esto dado el hecho que el test ADF contempla dicha posibilidad.

El test de Dickey-Fuller (DF) se basa en la siguiente regresión:

$$\Delta X_t = \delta X_{t-1} + u_t$$

Donde  $\delta = (\rho-1)$

La hipótesis testada es  $H_0: X_t$  no es  $I(0)$ , contra  $H_1: X_t$  es  $I(0)$ .  $H_0$  se rechaza si el estimador de  $\delta$  es negativo y significativamente diferente de cero.

El test de Dickey-Fuller aumentado (ADF) adiciona los valores rezagados de la variable dependiente, obteniendo la siguiente expresión:

$$\Delta X_t = \beta_1 + \beta_2 t + \delta X_{t-1} + \sum_{i=1}^p \gamma_i \Delta X_{t-i} + u_t$$

Al igual que en otras pruebas estadísticas, el valor de alfa ( $\alpha$ ) resultante de la aplicación de este contraste, en determinado nivel de confianza, permitirá la aceptación o rechazo de la hipótesis nula y por tanto la determinación de estacionalidad de la serie de tiempo analizada.



### Estadístico de Durbin-Watson

De acuerdo con Kotz y Johnson (1992), el Test de Durbin-Watson permite evaluar si existe autocorrelación en una regresión, ya sea simple o múltiple. Con ello se pretende ver si los valores presentan algún tipo de dependencia en cuanto al orden de obtención. Si fuera así se estaría incumpliendo una de las condiciones del modelo de regresión como son la normalidad, homogeneidad de varianzas e independencia de los datos, siendo esta última la comprometida en este. Al incumplirse estas, las estimaciones de los parámetros del modelo (coeficientes del modelo) no tienen la calidad que se supone.

De acuerdo con lo expresado en el trabajo de Durbin y Watson (1950), el test en mención se basa en la siguiente expresión:

$$d = \frac{\sum_{t=2}^n (e_t - e_{t-1})^2}{\sum_{t=1}^n e_t^2}$$

Donde  $e_t$  = residuo a tiempo  $t$ .

La hipótesis testeada es  $H_0: \rho = 0$ , contra  $H_1: \rho \neq 0$ . Es decir, la hipótesis nula señala que la autocorrelación es cero (ausencia de autocorrelación) versus la alternativa que afirma que es distinta a cero. Se definen tres escenarios para la evaluación del estadístico resultante:

$d < d_L$ , se rechaza  $H_0$ , existe autocorrelación

$d_L \geq d \geq d_u$ , valor de  $p$  no definido, prueba no concluyente

$d > d_u$ , no se rechaza  $H_0$ , de encontrarse en el intervalo  $d_u < d < 4 - d_u$ , se afirma la ausencia de autocorrelación.

Los valores de  $d_u$  y  $d_L$  se obtienen de tablas desarrolladas por los mismos autores de la prueba.

De estas, será de interés obtener un escenario de evaluación del modelo en el cual se asegure la ausencia de autocorrelación, pues esto valida el modelo para el test de raíz unitaria.

## **Anexo 4. Proceso de compras nacionales y Proceso de ventas**

### **Proceso de Compras Nacionales**

El proceso inicia con la evaluación del nivel de existencias. En esta actividad, se tiene que ver qué productos se terminaron o están por agotarse en el almacén para hacer el nuevo pedido. En el caso de la empresa, se realiza una evaluación semanal o al momento de estar muy bajo el nivel de artículos disponibles, algo que no es muy recomendable debido a que se puede exponer a roturas de stock por la variabilidad de la demanda durante el tiempo de aprovisionamiento o el período semanal entre revisiones.

Una vez definidos los productos y cantidades que se van a pedir, las cuales se determinan de forma empírica y sin una planeación previa, la empresa contacta con los proveedores ya definidos a nivel nacional. Esta negociación es de forma directa entre el gerente comercial y el representante de ventas de la empresa proveedora, de la cual se obtiene una cotización en la que se incluye información como costos, tiempo de entrega y medio de envío. Obtenida la cotización, se apremia a ser aprobada la compra por el subgerente general, el cual evalúa las condiciones comerciales presentadas. De no ser satisfactorias del todo las condiciones, el gerente comercial debe renegociar las condiciones o buscar otro proveedor que supla las mismas necesidad (generalmente cambiando de marca pero con las mismas características del artículo). De ser aprobada la cotización se procede a hacer efectiva la compra mediante la emisión de la orden de compra.

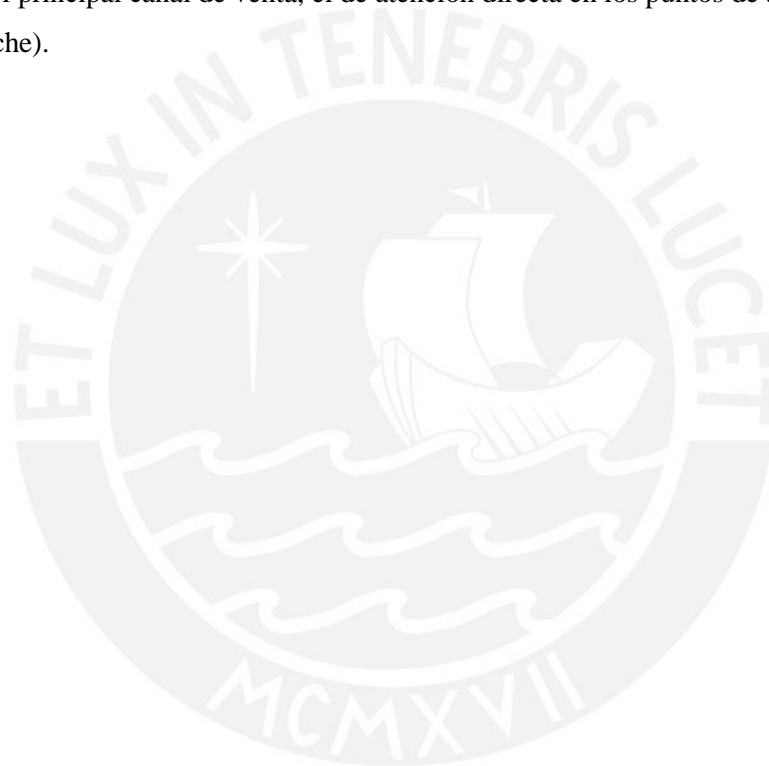
El gerente de logística, con la orden de compra emitida, procede a comunicarse con el proveedor correspondiente y a coordinar con el gerente de logística la llegada del pedido. Así, cuando la mercadería es transportada al almacén, el jefe de almacén tiene previstos los recursos necesarios y se recepciona el envío, culminando el proceso de compra.

### **Proceso de ventas**

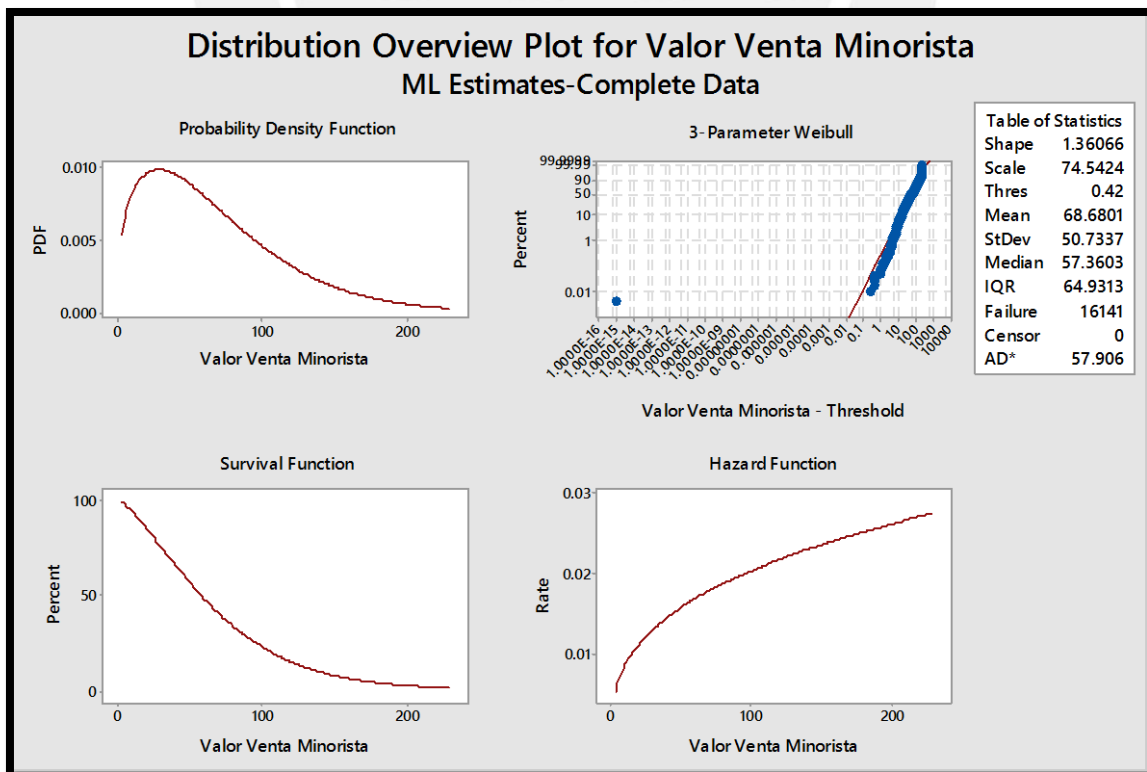
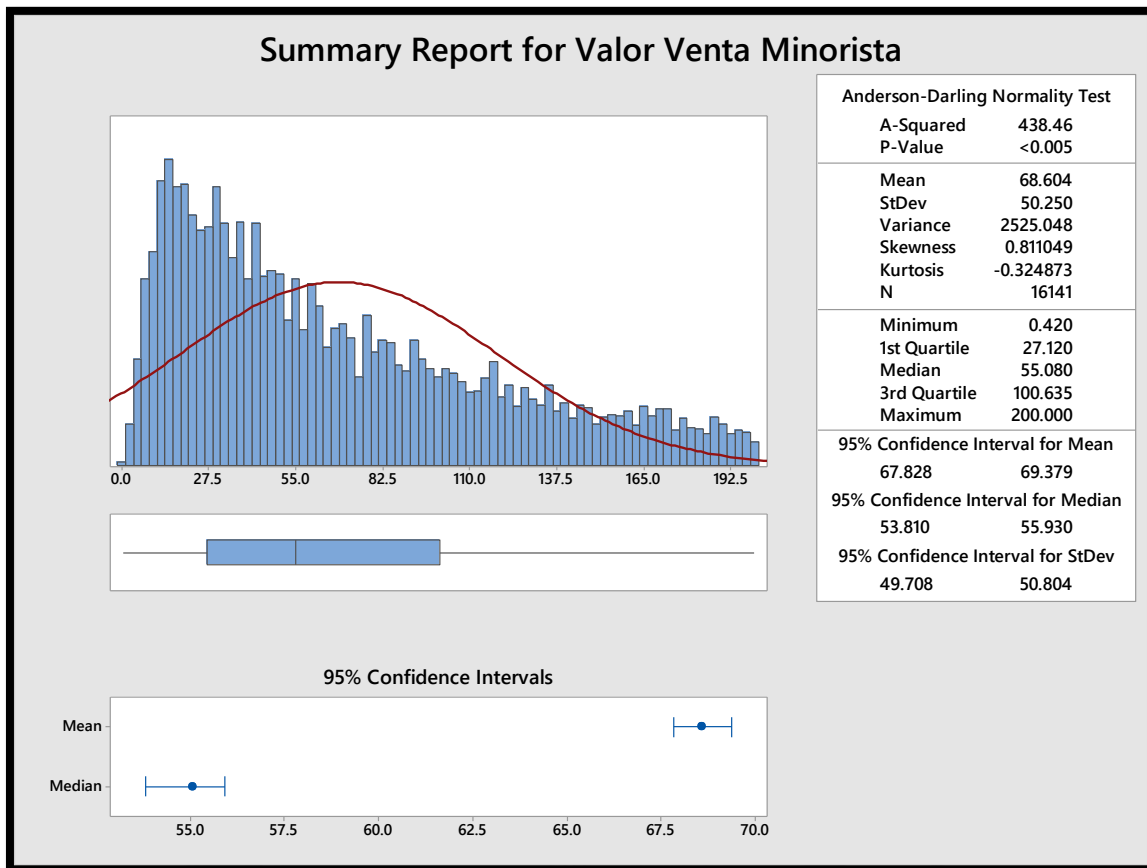
El proceso de ventas inicia en la actividad recepción al cliente. Esta actividad abarca desde el ingreso del cliente al establecimiento comercial motivado por la publicidad del local, conocimiento previo de la empresa u otro factor de promoción. Seguidamente, se desarrolla la atención al cliente. En esta actividad, el potencial comprador es atendido por el vendedor o encargado de ventas el cual se encarga de obtener del cliente información sobre su requerimiento. Dado que generalmente, el cliente ya viene sabiendo el producto que desea adquirir, la tarea del vendedor se orienta a ofrecer las marcas propias de la empresa y le ofrece promociones e información disponibles en la tienda. Si el cliente decide comprar ahí, se realiza el pedido de mercadería y se detallan las condiciones de pago y de entrega de los productos. A continuación el cliente procede a realizar el pago de la compra en el área de caja y el cajero le entrega la boleta o factura y guía de remisión en caso de ser requerido. Inmediatamente después, el cajero contacta

al área de despacho (almaceneros) y solicita el despacho del pedido. Este verificara si cuenta con la mercadería requerida en el almacén o si se cuenta con stock en el almacén central (Carabayllo). De poder cubrir el pedido con el inventario a la mano, se procede a alistar el pedido. Caso contrario se analiza si se puede atender el pedido o si se requiere de solicitar al almacén central el envío del número de faltantes. De no ser posible cubrir el pedido, se procede con la devolución de dinero (venta al por menor) o al ofrecimiento de postergar la entrega (venta al por mayor) con un descuento compensatorio. De esta forma se busca asegurar la fidelidad de los compradores de mayores volúmenes.

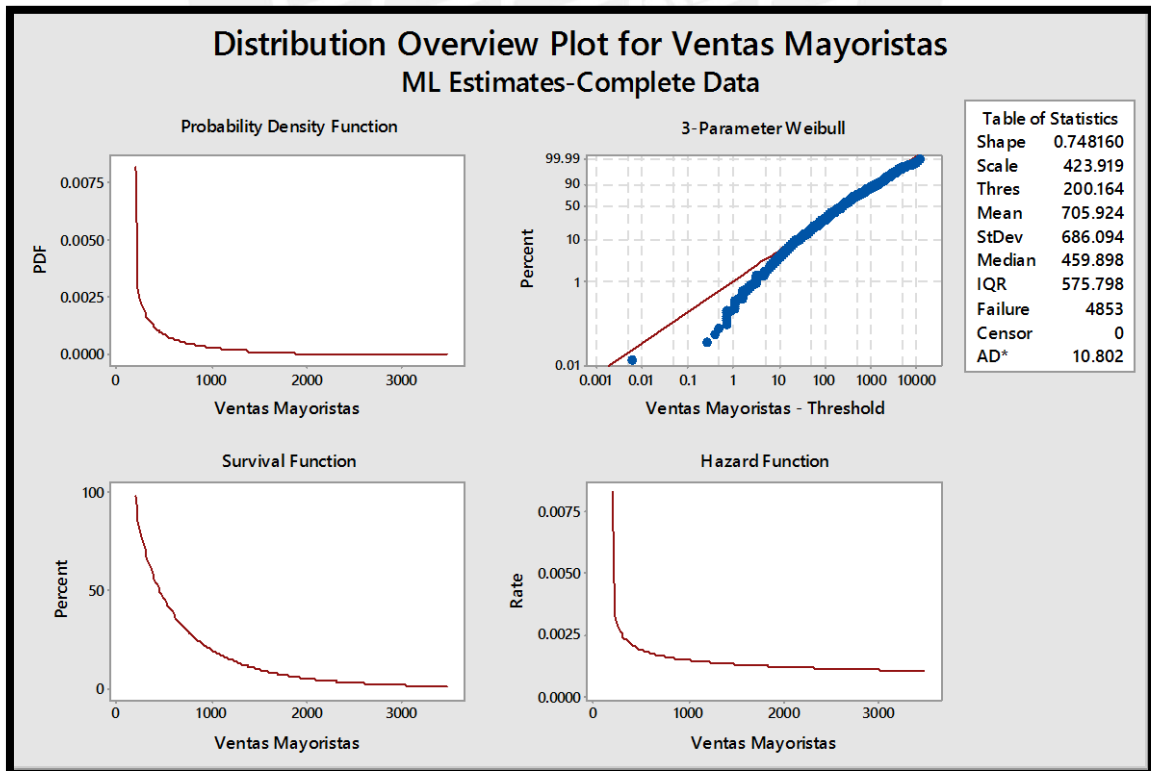
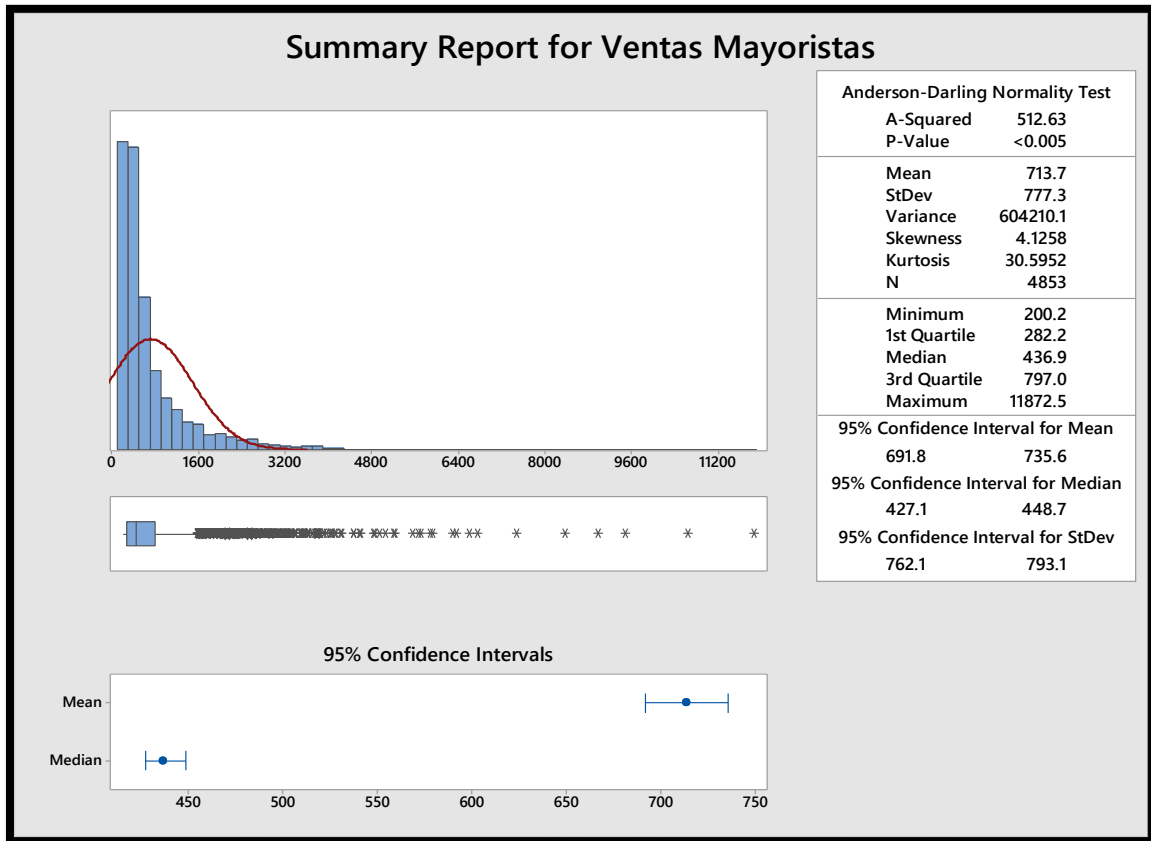
El proceso de ventas se ha simplificado a una sola descripción dado que el de mayor número de ventas se atienden al menudeo y el mayor volumen de ingresos lo generan las ventas al por mayor, siendo en ambos casos, el principal canal de venta, el de atención directa en los puntos de atención (tienda central y tienda Trapiche).



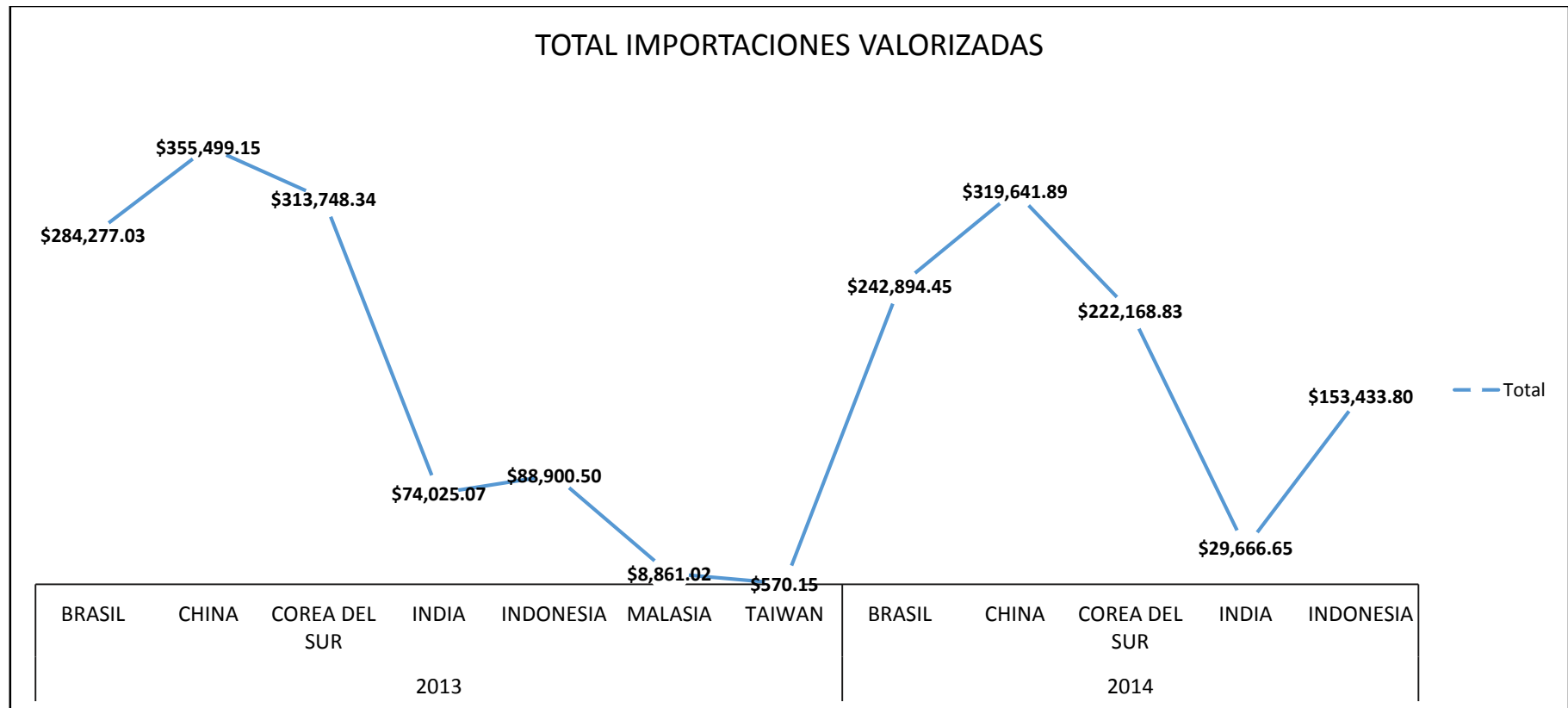
Anexo 5. Análisis estadístico de ventas – Minorista



Anexo 6. Análisis estadístico de ventas – Mayorista



Anexo 7. Volúmenes de importación según país de origen



**Anexo 8. Análisis de costos por áreas funcionales**

**ADMINISTRACIÓN**

Alquiler local (5% de Local principal)	S/. 1,800.00
Sueldo estimado administrativos	S/. 180,000.00
Gastos administrativos (20% de total EGP)	S/. 23,719.00
Otros (10%)	S/. 2,500.00

**VENTAS**

Alquiler local (15% de local principal)	S/. 5,400.00
Sueldos Fuerza de Ventas (1 jefe + 5 vend)	S/. 105,600.00
Marketing y Publicidad	S/. 9,500.00
Gastos de ventas (EGP 2014)	S/. 79,063.00
Gastos administrativos (10%)	S/. 11,859.50
Otros (20%)	S/. 5,000.00

**LOGÍSTICA**

Alquiler local (80% de local principal)	S/. 28,800.00
Sueldos personal (1 jefe + 3 operarios)	S/. 72,000.00
Gastos administrativos (20% de total)	S/. 23,719.00
Inventario promedio	S/. 605,480.50
Mantenimiento de Inventarios	S/. 90,822.07
Compras (Internacional + Nacional)	S/. 2,858,076.98
Fletes (Internacional + Nacional)	S/. 102,744.65
COMEX	S/. 87,264.55
Gastos de Almacén (Operaciones)	S/. 35,900.00
Otros (70%)	S/. 17,500.00

**CONTABILIDAD Y FINANZAS**

Gastos Financieros	S/. 25,000.00
Gastos Administrativos (50%)	S/. 59,297.50
Costos de servicios	S/. 24,000.00

Anexo 9. Registro de ventas pérdidas 2014

Mes	N° de ocurrencias	Ventas pérdidas estimadas	Mes	N° de ocurrencias	Ventas pérdidas estimadas
Enero	107	S/. 7,348.76	Enero	8	S/. 5,709.60
Febrero	93	S/. 6,387.24	Febrero	4	S/. 2,854.80
Marzo	67	S/. 4,601.56	Marzo	2	S/. 1,427.40
Abril	82	S/. 5,631.76	Abril	6	S/. 4,282.20
Mayo	78	S/. 5,357.04	Mayo	5	S/. 3,568.50
Junio	87	S/. 5,975.16	Junio	6	S/. 4,282.20
Julio	56	S/. 3,846.08	Julio	3	S/. 2,141.10
Agosto	66	S/. 4,532.88	Agosto	9	S/. 6,423.30
Septiembre	89	S/. 6,112.52	Septiembre	9	S/. 6,423.30
Octubre	76	S/. 5,219.68	Octubre	7	S/. 4,995.90
Noviembre	104	S/. 7,142.72	Noviembre	11	S/. 7,850.70
Diciembre	118	S/. 8,104.24	Diciembre	9	S/. 6,423.30
<b>TOTAL</b>	<b>1023</b>	<b>S/. 70,259.64</b>	<b>TOTAL</b>	<b>79</b>	<b>S/. 56,382.30</b>
<b>Venta media estimada (Minorista)</b>		<b>S/. 68.68</b>	<b>Venta media estimada (Mayorista)</b>		<b>S/. 713.70</b>



### Anexo 10. Proceso de análisis jerárquico

#### PROCESO DE ANÁLISIS JERÁRQUICO

CRITERIO	CÓDIGO
Genera costos extras	C1
Se presenta frecuentemente	C2
Implica el uso de más recursos (tiempo, personal, espacio)	C3
Afecta las prioridades competitivas	C4

	C1	C2	C3	C4
C1	1.00	3.00	2.00	2.00
C2	0.33	1.00	3.00	1.00
C3	0.50	0.33	1.00	1.00
C4	0.50	1.00	1.00	1.00
TOTAL	2.33	5.33	7.00	5.00

CRITERIO	%
Genera costos extras	42%
Se presenta frecuentemente	24%
Implica el uso de más recursos (tiempo, personal, espacio)	15%
Afecta las prioridades competitivas	19%

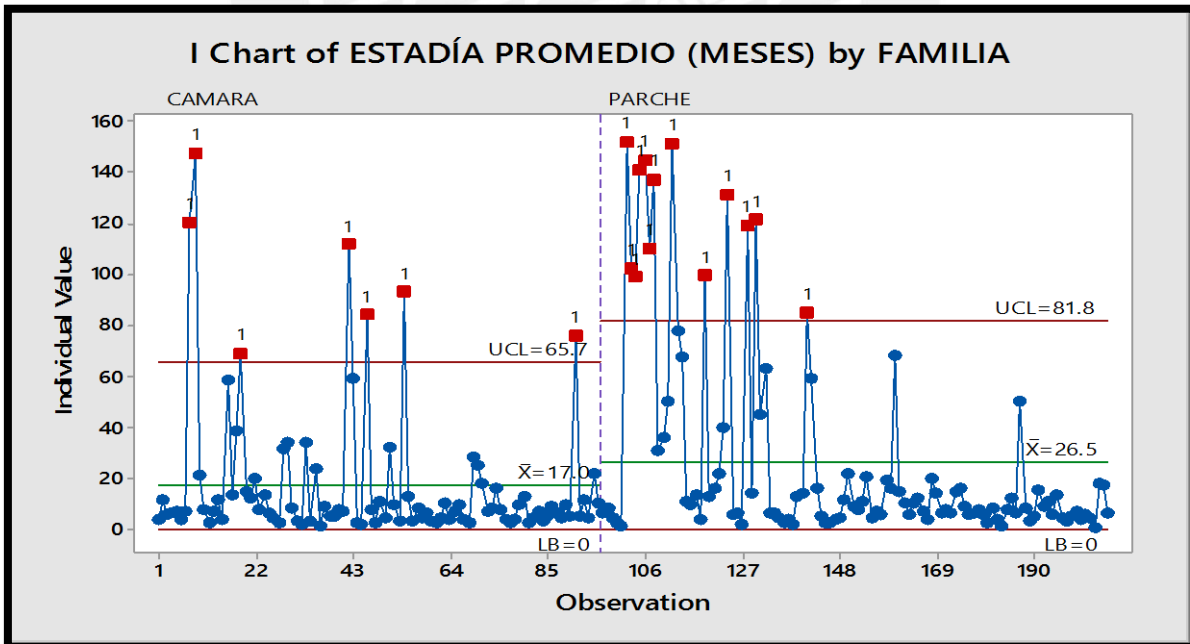
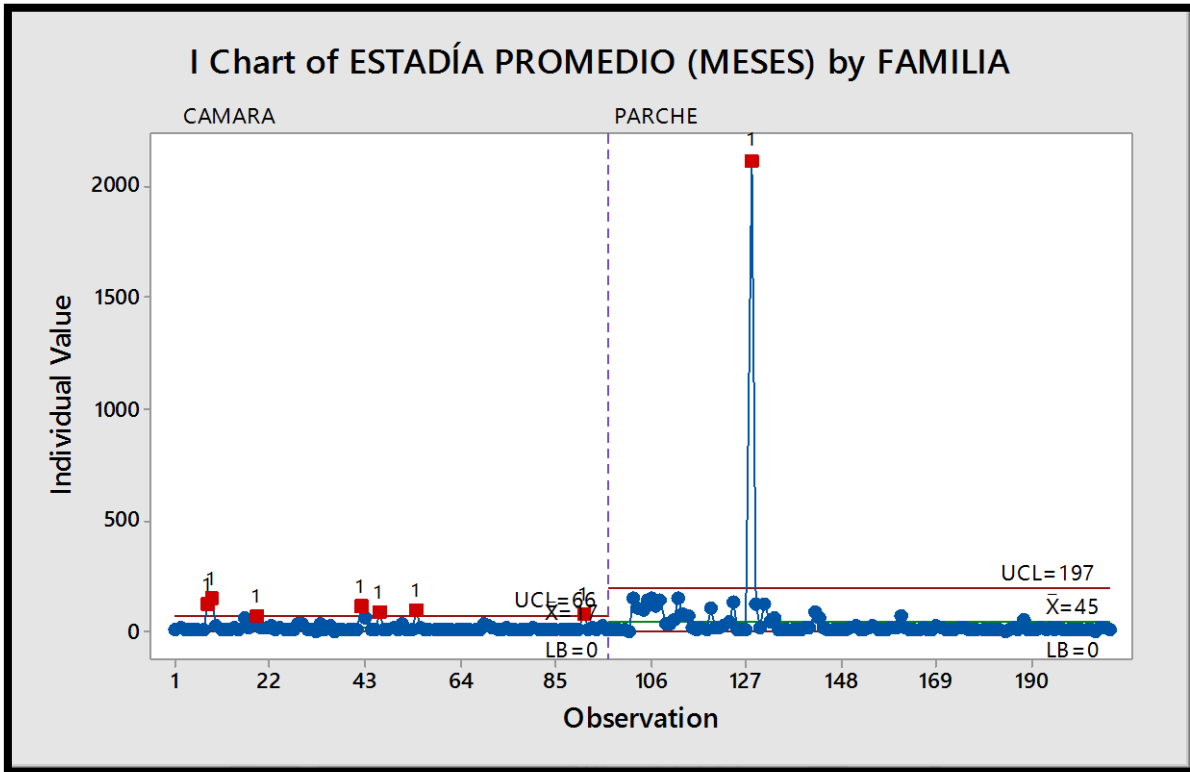
	C1	C2	C3	C4	PROM
C1	0.43	0.56	0.29	0.40	0.42
C2	0.14	0.19	0.43	0.20	0.24
C3	0.21	0.06	0.14	0.20	0.15
C4	0.21	0.19	0.14	0.20	0.19

Wprom i	n*Wprom i
1.82	4.34
1.03	4.30
0.63	4.07
0.79	4.25
nmáx	4.24

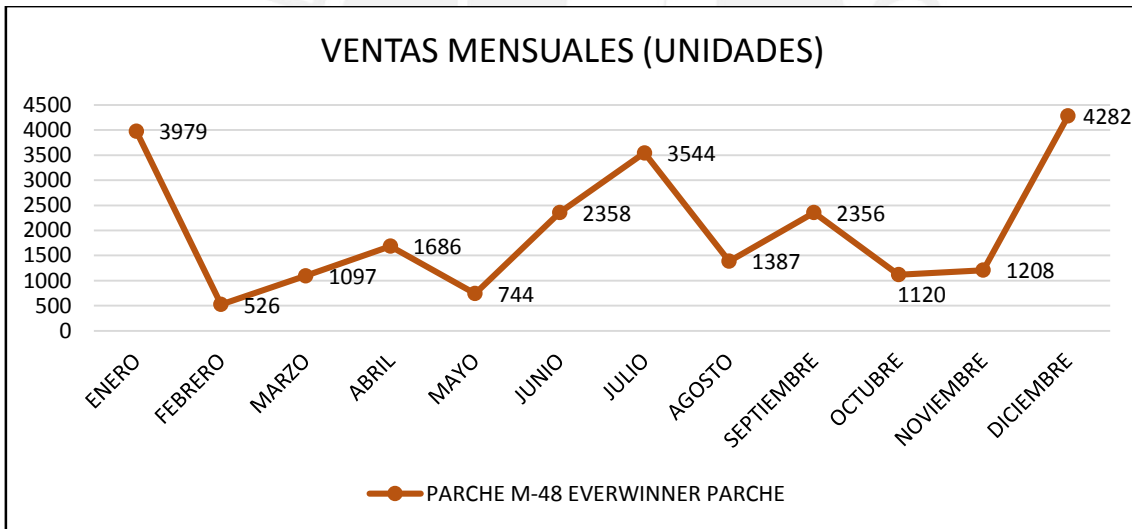
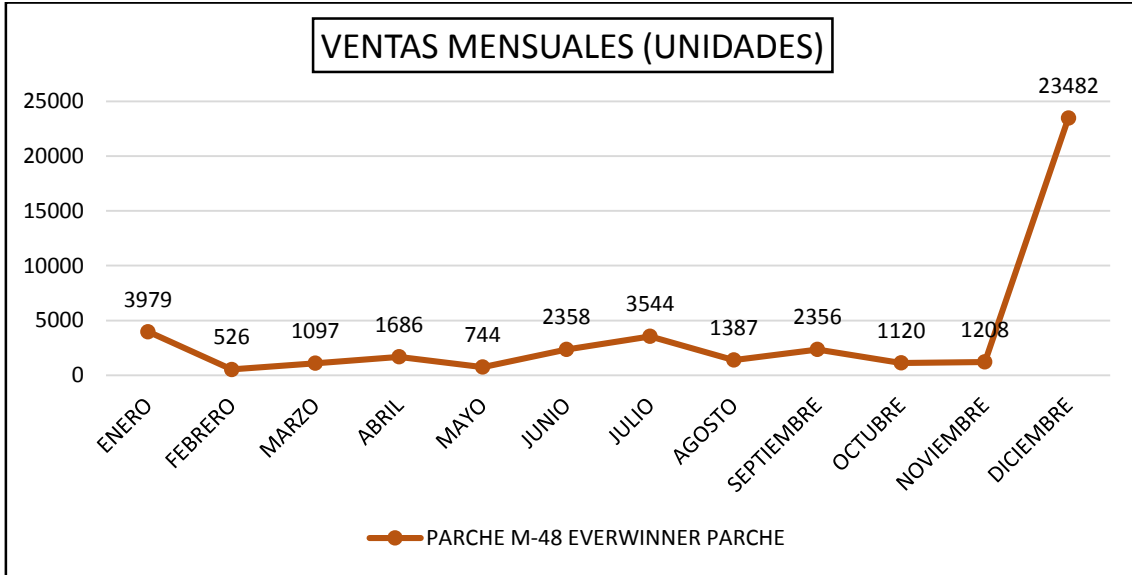
IC	0.08	
IA	1.32	
RC	0.06	<0.1

**Resultado:** Se posee una inconsistencia aceptable.

Anexo 11. Gráficos de control – Estadía promedio (meses)



Anexo 12. Normalización de ventas mensuales – Parche M-48 Everwinner





**Anexo 13. Clasificación ABC Multicriterio**

**Anexo 13.1. Datos de Ingreso para la Clasificación ABC**

PRODUCTO	FAMILIA	FRECUENCIA (UNID)	VALORIZACIÓN	MARGEN DE CONTRIBUCIÓN
CAMARA 400-8ARL TR 87C	CAMARA	987	S/. 5,872.65	S/. 2,516.85
CAMARA 1000-20 SUPER BULL PREMIUN TR78A	CAMARA	192	S/. 8,179.20	S/. 1,804.80
CAMARA 1000R20 SUPER BULL PREMIUN TR78A	CAMARA	139	S/. 6,463.50	S/. 1,181.50
CAMARA 1100-20 CONCORD PLUS TR78A	CAMARA	29	S/. 1,287.60	S/. 191.40
CAMARA 1100-20 SUPER BULL PREMIUN TR78A	CAMARA	415	S/. 21,248.00	S/. 2,822.00
CAMARA 1100-20ARL TR78A	CAMARA	180	S/. 6,624.00	S/. 2,016.00
CAMARA 1100R20 SUPER BULL PREMIUN TR78A	CAMARA	272	S/. 14,280.00	S/. 2,584.00
CAMARA 1100R22 SUPER BULL PREMIUN TR78A	CAMARA	14	S/. 758.80	S/. 151.20
CAMARA 11L-16 SUPER BULL PREMIUN TR15	CAMARA	9	S/. 252.00	S/. 198.00
CAMARA 12.5/80-18 SUPER BULL PREMIUN TR218A	CAMARA	40	S/. 1,600.00	S/. 1,400.00
CAMARA 1200-20 CONCORD PLUS	CAMARA	51	S/. 2,856.00	S/. 204.00
CAMARA 1200-20 SUPER BULL PREMIUN TR78A	CAMARA	138	S/. 7,672.80	S/. 883.20
CAMARA 1200-20ARL TR78A	CAMARA	120	S/. 4,896.00	S/. 1,344.00
CAMARA 1200-24 SUPER BULL PREMIUN TR78A	CAMARA	35	S/. 2,170.00	S/. 455.00
CAMARA 1200R20 SUPER BULL PREMIUN TR78A	CAMARA	489	S/. 27,384.00	S/. 4,401.00
CAMARA 14.9/13-24 SUPER BULL PREMIUN TR 218A	CAMARA	4	S/. 256.00	S/. 104.00
CAMARA 14.9/13-28 SUPER BULL PREMIUN	CAMARA	13	S/. 955.50	S/. 539.50
CAMARA 1400-24 TR179A SUPER BULL PREMIUM	CAMARA	11	S/. 918.50	S/. 401.50
CAMARA 18.4/15-38 SUPER BULL PREMIUN TR218A	CAMARA	4	S/. 548.00	S/. 172.00
CAMARA 19.5-24 SUPER BULL PREMIUM TR218A	CAMARA	18	S/. 1,638.00	S/. 972.00
CAMARA 20.5-25 SUPER BULL PREMIUN TRJ1175C	CAMARA	6	S/. 912.00	S/. 498.00
CAMARA 20.8 X 38 NEXEN TR218A	CAMARA	5	S/. 1,113.30	S/. 286.70
CAMARA 23.5-25 SUPER BULL PREMIUN TRJ1175C	CAMARA	15	S/. 2,505.00	S/. 1,245.00
CAMARA 26.5-25 SUPER BULL PREMIUN TRJ1175C	CAMARA	4	S/. 732.00	S/. 328.00
CAMARA 275/300-17 GOSTONE TR 4	CAMARA	238	S/. 1,071.00	S/. 357.00
CAMARA 275/300-17FORTUNE TR-4	CAMARA	68	S/. 522.92	S/. 109.48
CAMARA 275-18 DURO TR-4	CAMARA	74	S/. 732.60	S/. 118.40
CAMARA 275-18 KENDA TR-4	CAMARA	21	S/. 205.80	S/. 4.20
CAMARA 275-18 S & M TR-4	CAMARA	177	S/. 704.46	S/. 357.54
CAMARA 275-18 SWALLOW TR4	CAMARA	1599	S/. 9,753.90	S/. 3,837.60

CAMARA 300-17 HUNG-A TR-4	CAMARA	441	S/.	3,087.00	S/.	1,102.50
CAMARA 300-17 KENDA TR-4	CAMARA	338	S/.	3,312.40	S/.	574.60
CAMARA 300-17 S & M TR-4	CAMARA	410	S/.	1,722.00	S/.	943.00
CAMARA 300-17 SWALLOW TR4	CAMARA	1978	S/.	12,461.40	S/.	5,340.60
CAMARA 300-18 HUNG-A TR-4	CAMARA	4334	S/.	32,071.60	S/.	9,101.40
CAMARA 300-18 KENDA TR-4	CAMARA	3425	S/.	32,537.50	S/.	6,850.00
CAMARA 300-18 S & M TR-4	CAMARA	11024	S/.	47,403.20	S/.	24,252.80
CAMARA 300-18 SWALLOW TR4	CAMARA	11198	S/.	72,787.00	S/.	27,995.00
CAMARA 300-18ARL TR-4	CAMARA	1145	S/.	8,198.20	S/.	2,106.80
CAMARA 300-21 KENDA TR-4	CAMARA	36	S/.	404.64	S/.	153.36
CAMARA 300-21 SWALLOW TR-4	CAMARA	762	S/.	5,486.40	S/.	3,657.60
CAMARA 350-8 S & M TR87C	CAMARA	145	S/.	507.50	S/.	362.50
CAMARA 350-8 SWALLOW TR87C	CAMARA	215	S/.	1,139.50	S/.	580.50
CAMARA 400-8 GOSTONE TR 87C	CAMARA	1635	S/.	8,665.50	S/.	1,962.00
CAMARA 400-8 KENDA TR87C	CAMARA	863	S/.	7,024.82	S/.	2,468.18
CAMARA 400-8 S & M TR87C	CAMARA	1122	S/.	4,431.90	S/.	2,861.10
CAMARA 400-8 SUPER BULL PREMIUM TR-13	CAMARA	166	S/.	1,278.20	S/.	215.80
CAMARA 400-8 SUPER BULL PREMIUN TR87C	CAMARA	2327	S/.	17,917.90	S/.	3,025.10
CAMARA 400-8 SWALLOW TR87C	CAMARA	3933	S/.	23,204.70	S/.	12,192.30
CAMARA 400-8 TRULPER TR 87C	CAMARA	286	S/.	1,287.00	S/.	429.00
CAMARA 400-8M MARELY	CAMARA	15	S/.	75.00	S/.	22.50
CAMARA 410-18 GOSTONE	CAMARA	39	S/.	331.50	S/.	58.50
CAMARA 410-18 KENDA TR-4	CAMARA	84	S/.	1,029.84	S/.	356.16
CAMARA 410-18 S & M TR-4	CAMARA	170	S/.	969.00	S/.	731.00
CAMARA 410-18 SWALLOW TR-4	CAMARA	1798	S/.	15,570.68	S/.	7,803.32
CAMARA 650-16 SUPER BULL PREMIUN TR177A	CAMARA	614	S/.	10,867.80	S/.	2,947.20
CAMARA 700-15 CAMEL	CAMARA	108	S/.	2,559.60	S/.	194.40
CAMARA 700-15 SUPER BULL PREMIUN TR177A	CAMARA	929	S/.	16,861.35	S/.	4,041.15
CAMARA 700-15CP CONCORD PLUS TR 177A	CAMARA	57	S/.	1,133.73	S/.	120.27
CAMARA 700-16 CONCORD PLUS	CAMARA	146	S/.	2,774.00	S/.	657.00
CAMARA 700-16 SUPER BULL PREMIUN TR177A	CAMARA	5752	S/.	108,137.60	S/.	27,034.40
CAMARA 700X16 NEXEN	CAMARA	226	S/.	5,539.26	S/.	1,127.74
CAMARA 750-16 CAMELL TR177A	CAMARA	220	S/.	4,473.48	S/.	1,136.52
CAMARA 750-16 SUPER BULL PREMIUN TR177A	CAMARA	6583	S/.	131,001.70	S/.	36,864.80
CAMARA 750-16D DIAMOND	CAMARA	15	S/.	225.00	S/.	157.50

CAMARA 750-16-R SUPER BULL PREMIUN REFORZADA TR177A	CAMARA	166	S/.	3,303.40	S/.	3,004.60
CAMARA 750X16 NEXEN	CAMARA	114	S/.	3,083.70	S/.	222.30
CAMARA 825-16 SUPER BULL PREMIUN TR177A	CAMARA	2409	S/.	64,561.20	S/.	14,935.80
CAMARA 825-20 SUPER BULL PREMIUN TR177A	CAMARA	75	S/.	2,475.00	S/.	487.50
CAMARA 825-20C CONCORD PLUS TR177A	CAMARA	5	S/.	160.70	S/.	64.30
CAMARA 900-20 SUPER BULL PREMIUN TR175A	CAMARA	113	S/.	4,373.10	S/.	711.90
CAMARA DE BICICLETA 20X1.90/2.125 CST ARO 20	CAMARA	53	S/.	238.50	S/.	79.50
CAMARA DE BICICLETA 24X1.90/2.125 CST ARO 24	CAMARA	69	S/.	310.50	S/.	103.50
CAMARA DE BICICLETA 26X1.90/2.125 CST ARO 26	CAMARA	204	S/.	979.20	S/.	244.80
CAMARA ER-12 CAMELL TR13	CAMARA	26	S/.	227.24	S/.	45.76
CAMARA ER-12 NEXEN TR-13	CAMARA	202	S/.	1,925.06	S/.	700.94
CAMARA ER-12 SUPER BULL PREMIUN TR-13	CAMARA	8500	S/.	69,275.00	S/.	15,725.00
CAMARA ER-12C CONCORD PLUS TR13	CAMARA	724	S/.	6,059.88	S/.	818.12
CAMARA ER-13 SUPER BULL PREMIUN TR13	CAMARA	1207	S/.	10,863.00	S/.	1,810.50
CAMARA ER-15 DIAMOND TR-13	CAMARA	133	S/.	1,230.25	S/.	764.75
CAMARA FR12 ARL	CAMARA	374	S/.	2,984.52	S/.	568.48
CAMARA FR13 ARL	CAMARA	282	S/.	2,368.80	S/.	592.20
CAMARA FR-13 NEXEN TR13	CAMARA	85	S/.	1,035.30	S/.	112.20
CAMARA FR-13 SUPER BULL PREMIUN TR-13	CAMARA	13367	S/.	132,333.30	S/.	21,387.20
CAMARA FR-14 SUPER BULL PREMIUN TR-13	CAMARA	8645	S/.	90,772.50	S/.	17,290.00
CAMARA FR-14CP CONCORD PLUS TR 13	CAMARA	110	S/.	1,098.90	S/.	276.10
CAMARA FR-15 DIAMOND	CAMARA	295	S/.	2,802.50	S/.	1,475.00
CAMARA GR-13 CONCORD PLUS TR-13	CAMARA	60	S/.	606.60	S/.	203.40
CAMARA GR-14 SUPER BULL PREMIUN TR-13	CAMARA	641	S/.	7,820.20	S/.	1,474.30
CAMARA KR-14 SUPER BULL PREMIUN TR-13	CAMARA	1369	S/.	18,481.50	S/.	4,107.00
CAMARA KR-15 NEXEN TR-13	CAMARA	5	S/.	104.83	S/.	10.17
CAMARA KR-15 SUPER BULL PREMIUN TR-13	CAMARA	3515	S/.	53,779.50	S/.	14,763.00
CAMARA KR-15 SUPER BULL TR177A	CAMARA	28	S/.	390.04	S/.	127.96
CAMARA KR-16 SUPER BULL PREMIUN TR-13	CAMARA	4303	S/.	67,557.10	S/.	22,805.90
CAMARA KR-16C CAMELL TR13	CAMARA	6	S/.	102.00	S/.	18.00
CAMARA KR-16CP CONCORD PLUS TR177A	CAMARA	43	S/.	725.41	S/.	220.59
PARCHE COLD PATCH L-24	PARCHE	6776	S/.	12,671.12	S/.	7,656.88
PARCHE M-48 EVERWINNER	PARCHE	24287	S/.	30,601.62	S/.	30,115.88
PARCHE COLD PATCH S-48	PARCHE	5560	S/.	10,397.20	S/.	3,502.80
PARCHE COLD PATCH YP3-219	PARCHE	938	S/.	26.64	S/.	67.16

PARCHE COLD PATCH YP3-221	PARCHE	2831	S/.	162.50	S/.	403.70
PARCHE CP-201 CLASSIC	PARCHE	1196	S/.	27.51	S/.	92.09
PARCHE CP-202 CLASSIC	PARCHE	6805	S/.	272.20	S/.	408.30
PARCHE CP-203 CLASSIC	PARCHE	4275	S/.	247.95	S/.	350.55
PARCHE CP-401 CLASSIC	PARCHE	29376	S/.	1,586.30	S/.	3,113.86
PARCHE CP-402 CLASSIC	PARCHE	7749	S/.	627.67	S/.	612.17
PARCHE CP-403 CLASSIC	PARCHE	4228	S/.	534.84	S/.	310.76
PARCHE CP-404 CLASSIC	PARCHE	1833	S/.	412.43	S/.	504.08
PARCHE CP-501 DE LONA NINGBO	PARCHE	1702	S/.	1,804.12	S/.	919.08
PARCHE CP-502 DE LONA NINGBO	PARCHE	539	S/.	808.50	S/.	700.70
PARCHE CP-503 DE LONA NINGBO	PARCHE	300	S/.	468.00	S/.	582.00
PARCHE DC107-25 NINGBO	PARCHE	17664	S/.	402.74	S/.	833.74
PARCHE DC107-30 NINGBO	PARCHE	30562	S/.	1,237.76	S/.	1,818.44
PARCHE DC107-40 NINGBO	PARCHE	11358	S/.	408.89	S/.	1,294.81
PARCHE DC107-52 NINGBO	PARCHE	4391	S/.	400.46	S/.	697.29
PARCHE DC107-65 NINGBO	PARCHE	3414	S/.	583.79	S/.	611.11
PARCHE DC107-75 NINGBO	PARCHE	4025	S/.	905.63	S/.	704.38
PARCHE DC108-34X24 NINGBO	PARCHE	440	S/.	632.28	S/.	467.72
PARCHE DC108-72X40 NINGBO	PARCHE	254	S/.	370.59	S/.	518.41
PARCHE DC110-30 NINGBO	PARCHE	178916	S/.	11,021.23	S/.	12,237.85
PARCHE DC110-40 NINGBO	PARCHE	47015	S/.	4,344.19	S/.	4,118.51
PARCHE DC110-52 NINGBO	PARCHE	13445	S/.	1,941.46	S/.	1,688.69
PARCHE DC110-75 NINGBO	PARCHE	1839	S/.	472.07	S/.	410.65
PARCHE EWQ-09 CLASSIC	PARCHE	6174	S/.	679.14	S/.	493.92
PARCHE P-2 PANESA	PARCHE	4242	S/.	530.25	S/.	1,081.71
PARCHE PARA PISCINA #62068 EN STICKERS	PARCHE	28	S/.	70.00	S/.	70.00
PARCHE PARA PISCINA 59632 NP	PARCHE	121	S/.	205.70	S/.	701.80
PARCHE REM-00 RUZI	PARCHE	170	S/.	31.45	S/.	11.05
PARCHE REM-01 RUZI	PARCHE	1976	S/.	494.00	S/.	98.80
PARCHE REM-02 RUZI	PARCHE	34	S/.	8.67	S/.	8.33
PARCHE REM-03 RUZI	PARCHE	390	S/.	99.45	S/.	212.55
PARCHE REM-04 RUZI	PARCHE	848	S/.	259.49	S/.	546.11
PARCHE SCHRADER SBF1	PARCHE	49420	S/.	9,884.00	S/.	4,942.00
PARCHE SCHRADER SBF2	PARCHE	27675	S/.	12,730.50	S/.	8,025.75
PARCHE SCHRADER SBF3	PARCHE	23682	S/.	13,877.65	S/.	8,620.25



PARCHE SCHRADER SBMC2	PARCHE	20868	S/.	37,562.40	S/.	14,607.60
PARCHE SCHRADER SBMC3	PARCHE	12035	S/.	29,485.75	S/.	15,043.75
PARCHE SCHRADER SBMC4	PARCHE	7822	S/.	27,377.00	S/.	13,297.40
PARCHE SCHRADER SBMC5	PARCHE	4763	S/.	33,341.00	S/.	8,573.40
PARCHE SCHRADER SBMC6	PARCHE	1448	S/.	20,706.40	S/.	4,633.60
PARCHE SCHRADER SBMC7	PARCHE	436	S/.	9,156.00	S/.	1,526.00
PARCHE SCHRADER SBMC8	PARCHE	154	S/.	4,712.40	S/.	1,909.60
PARCHE SCHRADER SBMC9	PARCHE	26	S/.	780.00	S/.	468.00
PARCHE SCHRADER SBR0	PARCHE	136976	S/.	13,697.60	S/.	13,697.60
PARCHE SCHRADER SBR1	PARCHE	239546	S/.	31,140.98	S/.	28,745.52
PARCHE SCHRADER SBR10	PARCHE	628	S/.	1,243.44	S/.	514.96
PARCHE SCHRADER SBR2	PARCHE	41559	S/.	12,987.19	S/.	3,636.41
PARCHE SCHRADER SBR3	PARCHE	31425	S/.	10,998.75	S/.	9,427.50
PARCHE SCHRADER SBR4	PARCHE	17375	S/.	8,383.44	S/.	4,647.81
PARCHE SCHRADER SBR5	PARCHE	2682	S/.	1,743.30	S/.	3,620.70
PARCHE SCHRADER SBR6	PARCHE	825	S/.	1,683.00	S/.	792.00
PARCHE SCHRADER SBR7	PARCHE	1726	S/.	1,332.47	S/.	911.33
PARCHE SCHRADER SBR8	PARCHE	2037	S/.	2,322.18	S/.	1,140.72
PARCHE SCHRADER SBRB1	PARCHE	110559	S/.	10,503.11	S/.	9,397.52
PARCHE SCHRADER SBRB2	PARCHE	5364	S/.	1,088.89	S/.	1,593.11
PARCHE SCHRADER SBRC10	PARCHE	15540	S/.	24,864.00	S/.	10,878.00
PARCHE SCHRADER SBRC12	PARCHE	7728	S/.	23,184.00	S/.	5,409.60
PARCHE SCHRADER SBRC14	PARCHE	5504	S/.	15,961.60	S/.	6,054.40
PARCHE SCHRADER SBRC20	PARCHE	2763	S/.	6,078.60	S/.	4,973.40
PARCHE SCHRADER SBRC22	PARCHE	800	S/.	2,920.00	S/.	1,240.00
PARCHE SCHRADER SBRC24	PARCHE	135	S/.	513.00	S/.	499.50
PARCHE SCHRADER SBRC40	PARCHE	1831	S/.	11,352.20	S/.	6,042.30
PARCHE SCHRADER SBRC42	PARCHE	894	S/.	8,940.00	S/.	3,129.00
PARCHE SCHRADER SBRC44	PARCHE	275	S/.	3,437.50	S/.	962.50
PARCHE TFMD-02 TIREFIX	PARCHE	1901	S/.	3,003.58	S/.	1,368.72
PARCHE TFMD-03 TIREFIX	PARCHE	1110	S/.	2,331.00	S/.	1,332.00
PARCHE TFMD-04 TIREFIX	PARCHE	186	S/.	604.50	S/.	288.30
PARCHE TFMD-05 TIREFIX	PARCHE	154	S/.	877.80	S/.	354.20
PARCHE TFRC-110 TIREFIX	PARCHE	1231	S/.	1,815.73	S/.	769.38
PARCHE TFRC-112 TIREFIX	PARCHE	1034	S/.	2,223.10	S/.	1,085.70

PARCHE TFRC-114 TIREFIX	PARCHE	1123	S/.	2,863.65	S/.	1,291.45
PARCHE TFRC-120 TIREFIX	PARCHE	142	S/.	383.40	S/.	156.20
PARCHE VD10 VIPAL	PARCHE	86	S/.	6,923.95	S/.	1,891.05
PARCHE VF-3 VIPAL	PARCHE	5256	S/.	2,375.50	S/.	515.30
PARCHE VIPAL R-00	PARCHE	149178	S/.	35,035.95	S/.	6,733.89
PARCHE VIPAL R-01	PARCHE	213104	S/.	55,517.85	S/.	19,068.55
PARCHE VIPAL R-02	PARCHE	38871	S/.	15,174.27	S/.	4,261.23
PARCHE VIPAL R-03	PARCHE	22533	S/.	14,741.09	S/.	5,538.61
PARCHE VIPAL R-04	PARCHE	20921	S/.	16,920.38	S/.	4,000.62
PARCHE VIPAL R-05	PARCHE	3291	S/.	6,176.94	S/.	2,050.56
PARCHE VIPAL R-06	PARCHE	764	S/.	2,052.75	S/.	621.25
PARCHE VIPAL RAC08	PARCHE	372	S/.	814.68	S/.	1,231.32
PARCHE VIPAL RAC10	PARCHE	7737	S/.	16,957.18	S/.	3,932.72
PARCHE VIPAL RAC12	PARCHE	3470	S/.	12,877.17	S/.	2,737.83
PARCHE VIPAL RAC14	PARCHE	2128	S/.	9,168.49	S/.	1,684.31
PARCHE VIPAL RAC20	PARCHE	490	S/.	3,030.85	S/.	644.15
PARCHE VIPAL RAC22	PARCHE	334	S/.	2,081.49	S/.	523.71
PARCHE VIPAL RAC24	PARCHE	19	S/.	145.75	S/.	53.75
PARCHE VIPAL RAC25	PARCHE	85	S/.	725.91	S/.	294.09
PARCHE VIPAL RAC35	PARCHE	432	S/.	5,206.38	S/.	1,057.62
PARCHE VIPAL RAC40	PARCHE	280	S/.	3,016.05	S/.	623.95
PARCHE VIPAL RAC42	PARCHE	49	S/.	673.77	S/.	159.23
PARCHE VIPAL RAC44	PARCHE	42	S/.	693.42	S/.	209.58
PARCHE VIPAL RBM-01	PARCHE	57585	S/.	10,513.29	S/.	3,882.96
PARCHE VIPAL RBM-02	PARCHE	1609	S/.	420.79	S/.	705.51
PARCHE VIPAL RT-3	PARCHE	14760	S/.	8,472.61	S/.	3,335.39
PARCHE VIPAL VD1	PARCHE	40335	S/.	69,096.68	S/.	15,606.82
PARCHE VIPAL VD2	PARCHE	14244	S/.	36,043.73	S/.	8,112.67
PARCHE VIPAL VD3	PARCHE	6163	S/.	22,993.54	S/.	4,739.96
PARCHE VIPAL VD4	PARCHE	3629	S/.	21,393.32	S/.	4,735.48
PARCHE VIPAL VD5	PARCHE	2974	S/.	27,569.87	S/.	3,657.13
PARCHE VIPAL VD6	PARCHE	1114	S/.	19,004.95	S/.	3,275.05
PARCHE VIPAL VD7	PARCHE	284	S/.	7,122.63	S/.	829.37
PARCHE VIPAL VD8	PARCHE	132	S/.	5,437.58	S/.	1,030.42
PARCHE VIPAL VD9	PARCHE	5	S/.	262.01	S/.	47.99
PARCHE VIPAL VF-6	PARCHE	5336	S/.	4,454.60	S/.	1,415.00
PARCHE VIPAL VF-8	PARCHE	12190	S/.	14,305.45	S/.	1,541.55

Anexo 13.2. Clasificación Criterio Frecuencia

N° ARTICULO	PRODUCTO	FAMILIA	FRECUENCIA (UNID)	% RELATIVO	% ACUMULADO	CLASIFICACIÓN FRECUENCIA	CLASIFICACIÓN AJUSTADA
1	PARCHE SCHRADER SBR1	PARCHE	239546	12.27%	12.27%	A	A
2	PARCHE VIPAL R-01	PARCHE	213104	10.92%	23.19%	A	A
3	PARCHE DC110-30 NINGBO	PARCHE	178916	9.17%	32.36%	A	A
4	PARCHE VIPAL R-00	PARCHE	149178	7.64%	40.00%	A	A
5	PARCHE SCHRADER SBRO	PARCHE	136976	7.02%	47.02%	A	A
6	PARCHE SCHRADER SBRB1	PARCHE	110559	5.66%	52.68%	A	A
7	PARCHE VIPAL RBM-01	PARCHE	57585	2.95%	55.63%	A	A
8	PARCHE SCHRADER SBF1	PARCHE	49420	2.53%	58.16%	A	A
9	PARCHE DC110-40 NINGBO	PARCHE	47015	2.41%	60.57%	A	A
10	PARCHE SCHRADER SBR2	PARCHE	41559	2.13%	62.70%	A	A
11	PARCHE VIPAL VD1	PARCHE	40335	2.07%	64.77%	A	A
12	PARCHE VIPAL R-02	PARCHE	38871	1.99%	66.76%	A	B
13	PARCHE SCHRADER SBR3	PARCHE	31425	1.61%	68.37%	A	B
14	PARCHE DC107-30 NINGBO	PARCHE	30562	1.57%	69.93%	A	B
15	PARCHE CP-401 CLASSIC	PARCHE	29376	1.50%	71.44%	A	B
16	PARCHE SCHRADER SBF2	PARCHE	27675	1.42%	72.86%	A	B
17	PARCHE M-48 EVERWINNER	PARCHE	24287	1.24%	74.10%	A	B
18	PARCHE SCHRADER SBF3	PARCHE	23682	1.21%	75.31%	A	B
19	PARCHE VIPAL R-03	PARCHE	22533	1.15%	76.47%	A	B
20	PARCHE VIPAL R-04	PARCHE	20921	1.07%	77.54%	A	B
21	PARCHE SCHRADER SBMC2	PARCHE	20868	1.07%	78.61%	A	B
22	PARCHE DC107-25 NINGBO	PARCHE	17664	0.90%	79.51%	A	B
23	PARCHE SCHRADER SBR4	PARCHE	17375	0.89%	80.40%	B	B
24	PARCHE SCHRADER SBRC10	PARCHE	15540	0.80%	81.20%	B	B
25	PARCHE VIPAL RT-3	PARCHE	14760	0.76%	81.96%	B	B
26	PARCHE VIPAL VD2	PARCHE	14244	0.73%	82.69%	B	B
27	PARCHE DC110-52 NINGBO	PARCHE	13445	0.69%	83.38%	B	B
28	CAMARA FR-13 SUPER BULL PREMIUN TR-13	CAMARA	13367	0.68%	84.06%	B	B
29	PARCHE VIPAL VF-8	PARCHE	12190	0.62%	84.68%	B	B
30	PARCHE SCHRADER SBMC3	PARCHE	12035	0.62%	85.30%	B	B

31	PARCHE DC107-40 NINGBO	PARCHE	11358	0.58%	85.88%	B	B
32	CAMARA 300-18 SWALLOW TR4	CAMARA	11198	0.57%	86.46%	B	B
33	CAMARA 300-18 S & M TR-4	CAMARA	11024	0.56%	87.02%	B	B
34	CAMARA FR-14 SUPER BULL PREMIUN TR-13	CAMARA	8645	0.44%	87.46%	B	C
35	CAMARA ER-12 SUPER BULL PREMIUN TR-13	CAMARA	8500	0.44%	87.90%	B	C
36	PARCHE SCHRADER SBMC4	PARCHE	7822	0.40%	88.30%	B	C
37	PARCHE CP-402 CLASSIC	PARCHE	7749	0.40%	88.70%	B	C
38	PARCHE VIPAL RAC10	PARCHE	7737	0.40%	89.09%	B	C
39	PARCHE SCHRADER SBRC12	PARCHE	7728	0.40%	89.49%	B	C
40	PARCHE CP-202 CLASSIC	PARCHE	6805	0.35%	89.84%	B	C
41	PARCHE COLD PATCH L-24	PARCHE	6776	0.35%	90.19%	B	C
42	CAMARA 750-16 SUPER BULL PREMIUN TR177A	CAMARA	6583	0.34%	90.52%	B	C
43	PARCHE EWQ-09 CLASSIC	PARCHE	6174	0.32%	90.84%	B	C
44	PARCHE VIPAL VD3	PARCHE	6163	0.32%	91.16%	B	C
45	CAMARA 700-16 SUPER BULL PREMIUN TR177A	CAMARA	5752	0.29%	91.45%	B	C
46	PARCHE COLD PATCH S-48	PARCHE	5560	0.28%	91.73%	B	C
47	PARCHE SCHRADER SBRC14	PARCHE	5504	0.28%	92.02%	B	C
48	PARCHE SCHRADER SBRB2	PARCHE	5364	0.27%	92.29%	B	C
49	PARCHE VIPAL VF-6	PARCHE	5336	0.27%	92.56%	B	C
50	PARCHE VF-3 VIPAL	PARCHE	5256	0.27%	92.83%	B	C
51	PARCHE SCHRADER SBMC5	PARCHE	4763	0.24%	93.08%	B	C
52	PARCHE DC107-52 NINGBO	PARCHE	4391	0.22%	93.30%	B	C
53	CAMARA 300-18 HUNG-A TR-4	CAMARA	4334	0.22%	93.53%	B	C
54	CAMARA KR-16 SUPER BULL PREMIUN TR-13	CAMARA	4303	0.22%	93.75%	B	C
55	PARCHE CP-203 CLASSIC	PARCHE	4275	0.22%	93.96%	B	C
56	PARCHE P-2 PANESA	PARCHE	4242	0.22%	94.18%	B	C
57	PARCHE CP-403 CLASSIC	PARCHE	4228	0.22%	94.40%	B	C
58	PARCHE DC107-75 NINGBO	PARCHE	4025	0.21%	94.60%	B	C
59	CAMARA 400-8 SWALLOW TR87C	CAMARA	3933	0.20%	94.81%	B	C
60	PARCHE VIPAL VD4	PARCHE	3629	0.19%	94.99%	B	C
61	CAMARA KR-15 SUPER BULL PREMIUN TR-13	CAMARA	3515	0.18%	95.17%	C	C
62	PARCHE VIPAL RAC12	PARCHE	3470	0.18%	95.35%	C	C
63	CAMARA 300-18 KENDA TR-4	CAMARA	3425	0.18%	95.53%	C	C
64	PARCHE DC107-65 NINGBO	PARCHE	3414	0.17%	95.70%	C	C
65	PARCHE VIPAL R-05	PARCHE	3291	0.17%	95.87%	C	C

**Nota: Se procedió de igual forma con los 142 ítems restantes**

Anexo 13.3. Clasificación Criterio Valor

N° ARTICULO	PRODUCTO	FAMILIA	VALORIZACIÓN	% RELATIVO	% ACUMULADO	CLASIFICACIÓN VALOR	CLASIFICACIÓN AJUSTADA
1	CAMARA FR-13 SUPER BULL PREMIUN TR-13	CAMARA	S/. 132,333.30	5.95%	5.95%	A	A
2	CAMARA 750-16 SUPER BULL PREMIUN TR177A	CAMARA	S/. 131,001.70	5.89%	11.84%	A	A
3	CAMARA 700-16 SUPER BULL PREMIUN TR177A	CAMARA	S/. 108,137.60	4.86%	16.70%	A	A
4	CAMARA FR-14 SUPER BULL PREMIUN TR-13	CAMARA	S/. 90,772.50	4.08%	20.79%	A	A
5	CAMARA 300-18 SWALLOW TR4	CAMARA	S/. 72,787.00	3.27%	24.06%	A	A
6	CAMARA ER-12 SUPER BULL PREMIUN TR-13	CAMARA	S/. 69,275.00	3.12%	27.17%	A	A
7	PARCHE VIPAL VD1	PARCHE	S/. 69,096.68	3.11%	30.28%	A	A
8	CAMARA KR-16 SUPER BULL PREMIUN TR-13	CAMARA	S/. 67,557.10	3.04%	33.32%	A	A
9	CAMARA 825-16 SUPER BULL PREMIUN TR177A	CAMARA	S/. 64,561.20	2.90%	36.22%	A	A
10	PARCHE VIPAL R-01	PARCHE	S/. 55,517.85	2.50%	38.72%	A	A
11	CAMARA KR-15 SUPER BULL PREMIUN TR-13	CAMARA	S/. 53,779.50	2.42%	41.14%	A	A
12	CAMARA 300-18 S & M TR-4	CAMARA	S/. 47,403.20	2.13%	43.27%	A	A
13	PARCHE SCHRADER SBMC2	PARCHE	S/. 37,562.40	1.69%	44.96%	A	A
14	PARCHE VIPAL VD2	PARCHE	S/. 36,043.73	1.62%	46.58%	A	A
15	PARCHE VIPAL R-00	PARCHE	S/. 35,035.95	1.58%	48.15%	A	A
16	PARCHE SCHRADER SBMC5	PARCHE	S/. 33,341.00	1.50%	49.65%	A	A
17	CAMARA 300-18 KENDA TR-4	CAMARA	S/. 32,537.50	1.46%	51.12%	A	A
18	CAMARA 300-18 HUNG-A TR-4	CAMARA	S/. 32,071.60	1.44%	52.56%	A	A
19	PARCHE SCHRADER SBR1	PARCHE	S/. 31,140.98	1.40%	53.96%	A	A
20	PARCHE M-48 EVERWINNER	PARCHE	S/. 30,601.62	1.38%	55.33%	A	B
21	PARCHE SCHRADER SBMC3	PARCHE	S/. 29,485.75	1.33%	56.66%	A	B
22	PARCHE VIPAL VD5	PARCHE	S/. 27,569.87	1.24%	57.90%	A	B
23	CAMARA 1200R20 SUPER BULL PREMIUN TR78A	CAMARA	S/. 27,384.00	1.23%	59.13%	A	B
24	PARCHE SCHRADER SBMC4	PARCHE	S/. 27,377.00	1.23%	60.36%	A	B
25	PARCHE SCHRADER SBRC10	PARCHE	S/. 24,864.00	1.12%	61.48%	A	B
26	CAMARA 400-8 SWALLOW TR87C	CAMARA	S/. 23,204.70	1.04%	62.52%	A	B
27	PARCHE SCHRADER SBRC12	PARCHE	S/. 23,184.00	1.04%	63.57%	A	B
28	PARCHE VIPAL VD3	PARCHE	S/. 22,993.54	1.03%	64.60%	A	B
29	PARCHE VIPAL VD4	PARCHE	S/. 21,393.32	0.96%	65.56%	A	B
30	CAMARA 1100-20 SUPER BULL PREMIUN TR78A	CAMARA	S/. 21,248.00	0.96%	66.52%	A	B

31	PARCHE SCHRADER SBMC6	PARCHE	S/. 20,706.40	0.93%	67.45%	A	B
32	PARCHE VIPAL VD6	PARCHE	S/. 19,004.95	0.85%	68.30%	A	B
33	CAMARA KR-14 SUPER BULL PREMIUN TR-13	CAMARA	S/. 18,481.50	0.83%	69.13%	A	B
34	CAMARA 400-8 SUPER BULL PREMIUN TR87C	CAMARA	S/. 17,917.90	0.81%	69.94%	A	B
35	PARCHE VIPAL RAC10	PARCHE	S/. 16,957.18	0.76%	70.70%	A	B
36	PARCHE VIPAL R-04	PARCHE	S/. 16,920.38	0.76%	71.46%	A	B
37	CAMARA 700-15 SUPER BULL PREMIUN TR177A	CAMARA	S/. 16,861.35	0.76%	72.22%	A	B
38	PARCHE SCHRADER SBRC14	PARCHE	S/. 15,961.60	0.72%	72.94%	A	B
39	CAMARA 410-18 SWALLOW TR-4	CAMARA	S/. 15,570.68	0.70%	73.64%	A	B
40	PARCHE VIPAL R-02	PARCHE	S/. 15,174.27	0.68%	74.32%	A	B
41	PARCHE VIPAL R-03	PARCHE	S/. 14,741.09	0.66%	74.98%	A	B
42	PARCHE VIPAL VF-8	PARCHE	S/. 14,305.45	0.64%	75.63%	A	B
43	CAMARA 1100R20 SUPER BULL PREMIUN TR78A	CAMARA	S/. 14,280.00	0.64%	76.27%	A	B
44	PARCHE SCHRADER SBF3	PARCHE	S/. 13,877.65	0.62%	76.89%	A	B
45	PARCHE SCHRADER SBRO	PARCHE	S/. 13,697.60	0.62%	77.51%	A	B
46	PARCHE SCHRADER SBR2	PARCHE	S/. 12,987.19	0.58%	78.09%	A	B
47	PARCHE VIPAL RAC12	PARCHE	S/. 12,877.17	0.58%	78.67%	A	B
48	PARCHE SCHRADER SBF2	PARCHE	S/. 12,730.50	0.57%	79.25%	A	B
49	PARCHE COLD PATCH L-24	PARCHE	S/. 12,671.12	0.57%	79.82%	A	B
50	CAMARA 300-17 SWALLOW TR4	CAMARA	S/. 12,461.40	0.56%	80.38%	B	B
51	PARCHE SCHRADER SBRC40	PARCHE	S/. 11,352.20	0.51%	80.89%	B	B
52	PARCHE DC110-30 NINGBO	PARCHE	S/. 11,021.23	0.50%	81.38%	B	B
53	PARCHE SCHRADER SBR3	PARCHE	S/. 10,998.75	0.49%	81.88%	B	B
54	CAMARA 650-16 SUPER BULL PREMIUN TR177A	CAMARA	S/. 10,867.80	0.49%	82.37%	B	B
55	CAMARA ER-13 SUPER BULL PREMIUN TR13	CAMARA	S/. 10,863.00	0.49%	82.85%	B	B
56	PARCHE VIPAL RBM-01	PARCHE	S/. 10,513.29	0.47%	83.33%	B	C
57	PARCHE SCHRADER SBRB1	PARCHE	S/. 10,503.11	0.47%	83.80%	B	C
58	PARCHE COLD PATCH S-48	PARCHE	S/. 10,397.20	0.47%	84.27%	B	C
59	PARCHE SCHRADER SBF1	PARCHE	S/. 9,884.00	0.44%	84.71%	B	C
60	CAMARA 275-18 SWALLOW TR4	CAMARA	S/. 9,753.90	0.44%	85.15%	B	C
61	PARCHE VIPAL RAC14	PARCHE	S/. 9,168.49	0.41%	85.56%	B	C
62	PARCHE SCHRADER SBMC7	PARCHE	S/. 9,156.00	0.41%	85.97%	B	C
63	PARCHE SCHRADER SBRC42	PARCHE	S/. 8,940.00	0.40%	86.38%	B	C
64	CAMARA 400-8 GOSTONE TR 87C	CAMARA	S/. 8,665.50	0.39%	86.76%	B	C
65	PARCHE VIPAL RT-3	PARCHE	S/. 8,472.61	0.38%	87.15%	B	C

**Nota: Se procedió de igual forma con los 142 ítems restantes**

Anexo 13.4. Clasificación Criterio Margen

N° ARTICULO	PRODUCTO	FAMILIA	VALORIZACIÓN	% RELATIVO	% ACUMULADO	CLASIFICACIÓN MARGEN	CLASIFICACIÓN AJUSTADA
1	CAMARA 750-16 SUPER BULL PREMIUN TR177A	CAMARA	S/. 36,864.80	4.98%	4.98%	A	A
2	PARCHE M-48 EVERWINNER	PARCHE	S/. 30,115.88	4.07%	9.05%	A	A
3	PARCHE SCHRADER SBR1	PARCHE	S/. 28,745.52	3.88%	12.93%	A	A
4	CAMARA 300-18 SWALLOW TR4	CAMARA	S/. 27,995.00	3.78%	16.71%	A	A
5	CAMARA 700-16 SUPER BULL PREMIUN TR177A	CAMARA	S/. 27,034.40	3.65%	20.36%	A	A
6	CAMARA 300-18 S & M TR-4	CAMARA	S/. 24,252.80	3.28%	23.64%	A	A
7	CAMARA KR-16 SUPER BULL PREMIUN TR-13	CAMARA	S/. 22,805.90	3.08%	26.72%	A	A
8	CAMARA FR-13 SUPER BULL PREMIUN TR-13	CAMARA	S/. 21,387.20	2.89%	29.61%	A	A
9	PARCHE VIPAL R-01	PARCHE	S/. 19,068.55	2.58%	32.18%	A	A
10	CAMARA FR-14 SUPER BULL PREMIUN TR-13	CAMARA	S/. 17,290.00	2.34%	34.52%	A	A
11	CAMARA ER-12 SUPER BULL PREMIUN TR-13	CAMARA	S/. 15,725.00	2.12%	36.64%	A	A
12	PARCHE VIPAL VD1	PARCHE	S/. 15,606.82	2.11%	38.75%	A	A
13	PARCHE SCHRADER SBMC3	PARCHE	S/. 15,043.75	2.03%	40.78%	A	A
14	CAMARA 825-16 SUPER BULL PREMIUN TR177A	CAMARA	S/. 14,935.80	2.02%	42.80%	A	A
15	CAMARA KR-15 SUPER BULL PREMIUN TR-13	CAMARA	S/. 14,763.00	1.99%	44.79%	A	A
16	PARCHE SCHRADER SBMC2	PARCHE	S/. 14,607.60	1.97%	46.77%	A	A
17	PARCHE SCHRADER SBR0	PARCHE	S/. 13,697.60	1.85%	48.62%	A	A
18	PARCHE SCHRADER SBMC4	PARCHE	S/. 13,297.40	1.80%	50.41%	A	A
19	PARCHE DC110-30 NINGBO	PARCHE	S/. 12,237.85	1.65%	52.06%	A	A
20	CAMARA 400-8 SWALLOW TR87C	CAMARA	S/. 12,192.30	1.65%	53.71%	A	A
21	PARCHE SCHRADER SBRC10	PARCHE	S/. 10,878.00	1.47%	55.18%	A	A
22	PARCHE SCHRADER SBR3	PARCHE	S/. 9,427.50	1.27%	56.45%	A	B
23	PARCHE SCHRADER SBRB1	PARCHE	S/. 9,397.52	1.27%	57.72%	A	B
24	CAMARA 300-18 HUNG-A TR-4	CAMARA	S/. 9,101.40	1.23%	58.95%	A	B
25	PARCHE SCHRADER SBF3	PARCHE	S/. 8,620.25	1.16%	60.12%	A	B
26	PARCHE SCHRADER SBMC5	PARCHE	S/. 8,573.40	1.16%	61.27%	A	B
27	PARCHE VIPAL VD2	PARCHE	S/. 8,112.67	1.10%	62.37%	A	B
28	PARCHE SCHRADER SBF2	PARCHE	S/. 8,025.75	1.08%	63.45%	A	B
29	CAMARA 410-18 SWALLOW TR-4	CAMARA	S/. 7,803.32	1.05%	64.51%	A	B
30	PARCHE COLD PATCH L-24	PARCHE	S/. 7,656.88	1.03%	65.54%	A	B

31	CAMARA 300-18 KENDA TR-4	CAMARA	S/.	6,850.00	0.93%	66.47%	A	B
32	PARCHE VIPAL R-00	PARCHE	S/.	6,733.89	0.91%	67.38%	A	B
33	PARCHE SCHRADER SBRC14	PARCHE	S/.	6,054.40	0.82%	68.19%	A	B
34	PARCHE SCHRADER SBRC40	PARCHE	S/.	6,042.30	0.82%	69.01%	A	B
35	PARCHE VIPAL R-03	PARCHE	S/.	5,538.61	0.75%	69.76%	A	B
36	PARCHE SCHRADER SBRC12	PARCHE	S/.	5,409.60	0.73%	70.49%	A	B
37	CAMARA 300-17 SWALLOW TR4	CAMARA	S/.	5,340.60	0.72%	71.21%	A	B
38	PARCHE SCHRADER SBRC20	PARCHE	S/.	4,973.40	0.67%	71.88%	A	B
39	PARCHE SCHRADER SBF1	PARCHE	S/.	4,942.00	0.67%	72.55%	A	B
40	PARCHE VIPAL VD3	PARCHE	S/.	4,739.96	0.64%	73.19%	A	B
41	PARCHE VIPAL VD4	PARCHE	S/.	4,735.48	0.64%	73.83%	A	B
42	PARCHE SCHRADER SBR4	PARCHE	S/.	4,647.81	0.63%	74.46%	A	B
43	PARCHE SCHRADER SBMC6	PARCHE	S/.	4,633.60	0.63%	75.08%	A	B
44	CAMARA 1200R20 SUPER BULL PREMIUN TR78A	CAMARA	S/.	4,401.00	0.59%	75.68%	A	B
45	PARCHE VIPAL R-02	PARCHE	S/.	4,261.23	0.58%	76.25%	A	B
46	PARCHE DC110-40 NINGBO	PARCHE	S/.	4,118.51	0.56%	76.81%	A	B
47	CAMARA KR-14 SUPER BULL PREMIUN TR-13	CAMARA	S/.	4,107.00	0.55%	77.36%	A	B
48	CAMARA 700-15 SUPER BULL PREMIUN TR177A	CAMARA	S/.	4,041.15	0.55%	77.91%	A	B
49	PARCHE VIPAL R-04	PARCHE	S/.	4,000.62	0.54%	78.45%	A	B
50	PARCHE VIPAL RAC10	PARCHE	S/.	3,932.72	0.53%	78.98%	A	B
51	PARCHE VIPAL RBM-01	PARCHE	S/.	3,882.96	0.52%	79.51%	A	B
52	CAMARA 275-18 SWALLOW TR4	CAMARA	S/.	3,837.60	0.52%	80.02%	B	B
53	CAMARA 300-21 SWALLOW TR-4	CAMARA	S/.	3,657.60	0.49%	80.52%	B	B
54	PARCHE VIPAL VD5	PARCHE	S/.	3,657.13	0.49%	81.01%	B	B
55	PARCHE SCHRADER SBR2	PARCHE	S/.	3,636.41	0.49%	81.50%	B	B
56	PARCHE SCHRADER SBR5	PARCHE	S/.	3,620.70	0.49%	81.99%	B	B
57	PARCHE COLD PATCH S-48	PARCHE	S/.	3,502.80	0.47%	82.47%	B	C
58	PARCHE VIPAL RT-3	PARCHE	S/.	3,335.39	0.45%	82.92%	B	C
59	PARCHE VIPAL VD6	PARCHE	S/.	3,275.05	0.44%	83.36%	B	C
60	PARCHE SCHRADER SBRC42	PARCHE	S/.	3,129.00	0.42%	83.78%	B	C
61	PARCHE CP-401 CLASSIC	PARCHE	S/.	3,113.86	0.42%	84.20%	B	C
62	CAMARA 400-8 SUPER BULL PREMIUN TR87C	CAMARA	S/.	3,025.10	0.41%	84.61%	B	C
63	CAMARA 750-16-R SUPER BULL PREMIUN REFORZADA TR177A	CAMARA	S/.	3,004.60	0.41%	85.02%	B	C
64	CAMARA 650-16 SUPER BULL PREMIUN TR177A	CAMARA	S/.	2,947.20	0.40%	85.41%	B	C
65	CAMARA 400-8 S & M TR87C	CAMARA	S/.	2,861.10	0.39%	85.80%	B	C

**Nota: Se procedió de igual forma con los 142 ítems restantes**



Anexo 13.5. Resultados de la clasificación ABC Multicriterio

PRODUCTO	FAMILIA	CLASIFICACIÓN INDIVIDUAL			PUNTAJE OBTENIDO	CLASIFICACIÓN MULTICRITERIO	CLASIFICACIÓN ABC ACOTADA
		CRITERIO FRECUENCIA	CRITERIO VALOR	CRITERIO MARGEN			
PARCHE SCHRADER SBR1	PARCHE	A	A	A	9	A	A1
PARCHE VIPAL R-01	PARCHE	A	A	A	9	A	A1
PARCHE VIPAL VD1	PARCHE	A	A	A	9	A	A1
CAMARA 300-18 S & M TR-4	CAMARA	B	A	A	8	A	A2
CAMARA 300-18 SWALLOW TR4	CAMARA	B	A	A	8	A	A2
CAMARA FR-13 SUPER BULL PREMIUN TR-13	CAMARA	B	A	A	8	A	A2
PARCHE DC110-30 NINGBO	PARCHE	A	B	A	8	A	A2
PARCHE SCHRADER SBMC2	PARCHE	B	A	A	8	A	A2
PARCHE SCHRADER SBR0	PARCHE	A	B	A	8	A	A2
PARCHE VIPAL R-00	PARCHE	A	A	B	8	A	A2
CAMARA 700-16 SUPER BULL PREMIUN TR177A	CAMARA	C	A	A	7	A	A3
CAMARA 750-16 SUPER BULL PREMIUN TR177A	CAMARA	C	A	A	7	A	A3
CAMARA 825-16 SUPER BULL PREMIUN TR177A	CAMARA	C	A	A	7	A	A3
CAMARA ER-12 SUPER BULL PREMIUN TR-13	CAMARA	C	A	A	7	A	A3
CAMARA FR-14 SUPER BULL PREMIUN TR-13	CAMARA	C	A	A	7	A	A3
CAMARA KR-15 SUPER BULL PREMIUN TR-13	CAMARA	C	A	A	7	A	A3
CAMARA KR-16 SUPER BULL PREMIUN TR-13	CAMARA	C	A	A	7	A	A3
PARCHE M-48 EVERWINNER	PARCHE	B	B	A	7	A	A3
PARCHE SCHRADER SBMC3	PARCHE	B	B	A	7	A	A3
PARCHE SCHRADER SBR2	PARCHE	A	B	B	7	A	A3
PARCHE SCHRADER SBRC10	PARCHE	B	B	A	7	A	A3
PARCHE VIPAL VD2	PARCHE	B	A	B	7	A	A3
CAMARA 300-18 HUNG-A TR-4	CAMARA	C	A	B	6	B	B1
CAMARA 300-18 KENDA TR-4	CAMARA	C	A	B	6	B	B1
CAMARA 400-8 SWALLOW TR87C	CAMARA	C	B	A	6	B	B1
PARCHE DC110-40 NINGBO	PARCHE	A	C	B	6	B	B1
PARCHE SCHRADER SBF1	PARCHE	A	C	B	6	B	B1
PARCHE SCHRADER SBF2	PARCHE	B	B	B	6	B	B1
PARCHE SCHRADER SBF3	PARCHE	B	B	B	6	B	B1
PARCHE SCHRADER SBMC4	PARCHE	C	B	A	6	B	B1
PARCHE SCHRADER SBMC5	PARCHE	C	A	B	6	B	B1
PARCHE SCHRADER SBR3	PARCHE	B	B	B	6	B	B1
PARCHE SCHRADER SBRB1	PARCHE	A	C	B	6	B	B1
PARCHE VIPAL R-02	PARCHE	B	B	B	6	B	B1

PARCHE VIPAL R-03	PARCHE	B	B	B	6	B	B1
PARCHE VIPAL R-04	PARCHE	B	B	B	6	B	B1
PARCHE VIPAL RBM-01	PARCHE	A	C	B	6	B	B1
CAMARA 1200R20 SUPER BULL PREMIUN TR78A	CAMARA	C	B	B	5	B	B2
CAMARA 300-17 SWALLOW TR4	CAMARA	C	B	B	5	B	B2
CAMARA 410-18 SWALLOW TR-4	CAMARA	C	B	B	5	B	B2
CAMARA 700-15 SUPER BULL PREMIUN TR177A	CAMARA	C	B	B	5	B	B2
CAMARA KR-14 SUPER BULL PREMIUN TR-13	CAMARA	C	B	B	5	B	B2
PARCHE COLD PATCH L-24	PARCHE	C	B	B	5	B	B2
PARCHE SCHRADER SBMC6	PARCHE	C	B	B	5	B	B2
PARCHE SCHRADER SBR4	PARCHE	B	C	B	5	B	B2
PARCHE SCHRADER SBRC12	PARCHE	C	B	B	5	B	B2
PARCHE SCHRADER SBRC14	PARCHE	C	B	B	5	B	B2
PARCHE SCHRADER SBRC40	PARCHE	C	B	B	5	B	B2
PARCHE VIPAL RAC10	PARCHE	C	B	B	5	B	B2
PARCHE VIPAL VD3	PARCHE	C	B	B	5	B	B2
PARCHE VIPAL VD4	PARCHE	C	B	B	5	B	B2
PARCHE VIPAL VD5	PARCHE	C	B	B	5	B	B2
PARCHE VIPAL VF-8	PARCHE	B	B	C	5	B	B2
CAMARA 1100-20 SUPER BULL PREMIUN TR78A	CAMARA	C	B	C	4	C	C1
CAMARA 1100R20 SUPER BULL PREMIUN TR78A	CAMARA	C	B	C	4	C	C1
CAMARA 275-18 SWALLOW TR4	CAMARA	C	C	B	4	C	C1
CAMARA 300-21 SWALLOW TR-4	CAMARA	C	C	B	4	C	C1
CAMARA 400-8 SUPER BULL PREMIUN TR87C	CAMARA	C	B	C	4	C	C1
CAMARA 650-16 SUPER BULL PREMIUN TR177A	CAMARA	C	B	C	4	C	C1
CAMARA ER-13 SUPER BULL PREMIUN TR13	CAMARA	C	B	C	4	C	C1
PARCHE CP-401 CLASSIC	PARCHE	B	C	C	4	C	C1
PARCHE DC107-25 NINGBO	PARCHE	B	C	C	4	C	C1
PARCHE DC107-30 NINGBO	PARCHE	B	C	C	4	C	C1
PARCHE DC107-40 NINGBO	PARCHE	B	C	C	4	C	C1
PARCHE DC110-52 NINGBO	PARCHE	B	C	C	4	C	C1
PARCHE SCHRADER SBR5	PARCHE	C	C	B	4	C	C1
PARCHE SCHRADER SBRC20	PARCHE	C	C	B	4	C	C1
PARCHE VIPAL RAC12	PARCHE	C	B	C	4	C	C1
PARCHE VIPAL RT-3	PARCHE	B	C	C	4	C	C1
PARCHE VIPAL VD6	PARCHE	C	B	C	4	C	C1
CAMARA 400-8ARL TR 87C	CAMARA	C	C	C	3	C	C2
CAMARA 1000-20 SUPER BULL PREMIUN TR78A	CAMARA	C	C	C	3	C	C2
CAMARA 1000R20 SUPER BULL PREMIUN TR78A	CAMARA	C	C	C	3	C	C2
CAMARA 1100-20 CONCORD PLUS TR78A	CAMARA	C	C	C	3	C	C2

CAMARA 1100-20ARL TR78A	CAMARA	C	C	C	3	C	C2
CAMARA 1100R22 SUPER BULL PREMIUN TR78A	CAMARA	C	C	C	3	C	C2
CAMARA 11L-16 SUPER BULL PREMIUN TR15	CAMARA	C	C	C	3	C	C2
CAMARA 12.5/80-18 SUPER BULL PREMIUN TR218A	CAMARA	C	C	C	3	C	C2
CAMARA 1200-20 CONCORD PLUS	CAMARA	C	C	C	3	C	C2
CAMARA 1200-20 SUPER BULL PREMIUN TR78A	CAMARA	C	C	C	3	C	C2
CAMARA 1200-20ARL TR78A	CAMARA	C	C	C	3	C	C2
CAMARA 1200-24 SUPER BULL PREMIUN TR78A	CAMARA	C	C	C	3	C	C2
CAMARA 14.9/13-24 SUPER BULL PREMIUN TR 218A	CAMARA	C	C	C	3	C	C2
CAMARA 14.9/13-28 SUPER BULL PREMIUN	CAMARA	C	C	C	3	C	C2
CAMARA 1400-24 TR179A SUPER BULL PREMIUM	CAMARA	C	C	C	3	C	C2
CAMARA 18.4/15-38 SUPER BULL PREMIUN TR218A	CAMARA	C	C	C	3	C	C2
CAMARA 19.5-24 SUPER BULL PREMIUM TR218A	CAMARA	C	C	C	3	C	C2
CAMARA 20.5-25 SUPER BULL PREMIUN TRJ1175C	CAMARA	C	C	C	3	C	C2
CAMARA 20.8 X 38 NEXEN TR218A	CAMARA	C	C	C	3	C	C2
CAMARA 23.5-25 SUPER BULL PREMIUN TRJ1175C	CAMARA	C	C	C	3	C	C2
CAMARA 26.5-25 SUPER BULL PREMIUN TRJ1175C	CAMARA	C	C	C	3	C	C2
CAMARA 275/300-17 GOSTONE TR 4	CAMARA	C	C	C	3	C	C2
CAMARA 275/300-17FORTUNE TR-4	CAMARA	C	C	C	3	C	C2
CAMARA 275-18 DURO TR-4	CAMARA	C	C	C	3	C	C2
CAMARA 275-18 KENDA TR-4	CAMARA	C	C	C	3	C	C2
CAMARA 275-18 S & M TR-4	CAMARA	C	C	C	3	C	C2
CAMARA 300-17 HUNG-A TR-4	CAMARA	C	C	C	3	C	C2
CAMARA 300-17 KENDA TR-4	CAMARA	C	C	C	3	C	C2
CAMARA 300-17 S & M TR-4	CAMARA	C	C	C	3	C	C2
CAMARA 300-18ARL TR-4	CAMARA	C	C	C	3	C	C2
CAMARA 300-21 KENDA TR-4	CAMARA	C	C	C	3	C	C2
CAMARA 350-8 S & M TR87C	CAMARA	C	C	C	3	C	C2
CAMARA 350-8 SWALLOW TR87C	CAMARA	C	C	C	3	C	C2
CAMARA 400-8 GOSTONE TR 87C	CAMARA	C	C	C	3	C	C2
CAMARA 400-8 KENDA TR87C	CAMARA	C	C	C	3	C	C2
CAMARA 400-8 S & M TR87C	CAMARA	C	C	C	3	C	C2
CAMARA 400-8 SUPER BULL PREMIUM TR-13	CAMARA	C	C	C	3	C	C2
CAMARA 400-8 TRULPER TR 87C	CAMARA	C	C	C	3	C	C2
CAMARA 400-8M MARELY	CAMARA	C	C	C	3	C	C2
CAMARA 410-18 GOSTONE	CAMARA	C	C	C	3	C	C2
CAMARA 410-18 KENDA TR-4	CAMARA	C	C	C	3	C	C2
CAMARA 410-18 S & M TR-4	CAMARA	C	C	C	3	C	C2
CAMARA 700-15 CAMEL	CAMARA	C	C	C	3	C	C2
CAMARA 700-15CP CONCORD PLUS TR 177A	CAMARA	C	C	C	3	C	C2

CAMARA 700-16 CONCORD PLUS	CAMARA	C	C	C	3	C	C2
CAMARA 700X16 NEXEN	CAMARA	C	C	C	3	C	C2
CAMARA 750-16 CAMELL TR177A	CAMARA	C	C	C	3	C	C2
CAMARA 750-16D DIAMOND	CAMARA	C	C	C	3	C	C2
CAMARA 750-16- R SUPER BULL PREMIUN REFORZADA TR177A	CAMARA	C	C	C	3	C	C2
CAMARA 750X16 NEXEN	CAMARA	C	C	C	3	C	C2
CAMARA 825-20 SUPER BULL PREMIUN TR177A	CAMARA	C	C	C	3	C	C2
CAMARA 825-20C CONCORD PLUS TR177A	CAMARA	C	C	C	3	C	C2
CAMARA 900-20 SUPER BULL PREMIUN TR175A	CAMARA	C	C	C	3	C	C2
CAMARA DE BICICLETA 20X1.90/2.125 CST ARO 20	CAMARA	C	C	C	3	C	C2
CAMARA DE BICICLETA 24X1.90/2.125 CST ARO 24	CAMARA	C	C	C	3	C	C2
CAMARA DE BICICLETA 26X1.90/2.125 CST ARO 26	CAMARA	C	C	C	3	C	C2
CAMARA ER-12 CAMELL TR13	CAMARA	C	C	C	3	C	C2
CAMARA ER-12 NEXEN TR-13	CAMARA	C	C	C	3	C	C2
CAMARA ER-12C CONCORD PLUS TR13	CAMARA	C	C	C	3	C	C2
CAMARA ER-15 DIAMOND TR-13	CAMARA	C	C	C	3	C	C2
CAMARA FR12 ARL	CAMARA	C	C	C	3	C	C2
CAMARA FR13 ARL	CAMARA	C	C	C	3	C	C2
CAMARA FR-13 NEXEN TR13	CAMARA	C	C	C	3	C	C2
CAMARA FR-14CP CONCORD PLUS TR 13	CAMARA	C	C	C	3	C	C2
CAMARA FR-15 DIAMOND	CAMARA	C	C	C	3	C	C2
CAMARA GR-13 CONCORD PLUS TR-13	CAMARA	C	C	C	3	C	C2
CAMARA GR-14 SUPER BULL PREMIUN TR-13	CAMARA	C	C	C	3	C	C2
CAMARA KR-15 NEXEN TR-13	CAMARA	C	C	C	3	C	C2
CAMARA KR-15 SUPER BULL TR177A	CAMARA	C	C	C	3	C	C2
CAMARA KR-16C CAMELL TR13	CAMARA	C	C	C	3	C	C2
CAMARA KR-16CP CONCORD PLUS TR177A	CAMARA	C	C	C	3	C	C2
PARCHE COLD PATCH S-48	PARCHE	C	C	C	3	C	C2
PARCHE COLD PATCH YP3-219	PARCHE	C	C	C	3	C	C2
PARCHE COLD PATCH YP3-221	PARCHE	C	C	C	3	C	C2
PARCHE CP-201 CLASSIC	PARCHE	C	C	C	3	C	C2
PARCHE CP-202 CLASSIC	PARCHE	C	C	C	3	C	C2
PARCHE CP-203 CLASSIC	PARCHE	C	C	C	3	C	C2
PARCHE CP-402 CLASSIC	PARCHE	C	C	C	3	C	C2
PARCHE CP-403 CLASSIC	PARCHE	C	C	C	3	C	C2
PARCHE CP-404 CLASSIC	PARCHE	C	C	C	3	C	C2
PARCHE CP-501 DE LONA NINGBO	PARCHE	C	C	C	3	C	C2
PARCHE CP-502 DE LONA NINGBO	PARCHE	C	C	C	3	C	C2
PARCHE CP-503 DE LONA NINGBO	PARCHE	C	C	C	3	C	C2
PARCHE DC107-52 NINGBO	PARCHE	C	C	C	3	C	C2

PARCHE DC107-65 NINGBO	PARCHE	C	C	C	3	C	C2
PARCHE DC107-75 NINGBO	PARCHE	C	C	C	3	C	C2
PARCHE DC108-34X24 NINGBO	PARCHE	C	C	C	3	C	C2
PARCHE DC108-72X40 NINGBO	PARCHE	C	C	C	3	C	C2
PARCHE DC110-75 NINGBO	PARCHE	C	C	C	3	C	C2
PARCHE EWQ-09 CLASSIC	PARCHE	C	C	C	3	C	C2
PARCHE P-2 PANESA	PARCHE	C	C	C	3	C	C2
PARCHE PARA PISCINA #62068 EN STICKERS	PARCHE	C	C	C	3	C	C2
PARCHE PARA PISCINA 59632 NP	PARCHE	C	C	C	3	C	C2
PARCHE REM-00 RUZI	PARCHE	C	C	C	3	C	C2
PARCHE REM-01 RUZI	PARCHE	C	C	C	3	C	C2
PARCHE REM-02 RUZI	PARCHE	C	C	C	3	C	C2
PARCHE REM-03 RUZI	PARCHE	C	C	C	3	C	C2
PARCHE REM-04 RUZI	PARCHE	C	C	C	3	C	C2
PARCHE SCHRADER SBMC7	PARCHE	C	C	C	3	C	C2
PARCHE SCHRADER SBMC8	PARCHE	C	C	C	3	C	C2
PARCHE SCHRADER SBMC9	PARCHE	C	C	C	3	C	C2
PARCHE SCHRADER SBR10	PARCHE	C	C	C	3	C	C2
PARCHE SCHRADER SBR6	PARCHE	C	C	C	3	C	C2
PARCHE SCHRADER SBR7	PARCHE	C	C	C	3	C	C2
PARCHE SCHRADER SBR8	PARCHE	C	C	C	3	C	C2
PARCHE SCHRADER SBRB2	PARCHE	C	C	C	3	C	C2
PARCHE SCHRADER SBRC22	PARCHE	C	C	C	3	C	C2
PARCHE SCHRADER SBRC24	PARCHE	C	C	C	3	C	C2
PARCHE SCHRADER SBRC42	PARCHE	C	C	C	3	C	C2
PARCHE SCHRADER SBRC44	PARCHE	C	C	C	3	C	C2
PARCHE TFMD-02 TIREFIX	PARCHE	C	C	C	3	C	C2
PARCHE TFMD-03 TIREFIX	PARCHE	C	C	C	3	C	C2
PARCHE TFMD-04 TIREFIX	PARCHE	C	C	C	3	C	C2
PARCHE TFMD-05 TIREFIX	PARCHE	C	C	C	3	C	C2
PARCHE TFRC-110 TIREFIX	PARCHE	C	C	C	3	C	C2
PARCHE TFRC-112 TIREFIX	PARCHE	C	C	C	3	C	C2
PARCHE TFRC-114 TIREFIX	PARCHE	C	C	C	3	C	C2
PARCHE TFRC-120 TIREFIX	PARCHE	C	C	C	3	C	C2
PARCHE VD10 VIPAL	PARCHE	C	C	C	3	C	C2
PARCHE VF-3 VIPAL	PARCHE	C	C	C	3	C	C2
PARCHE VIPAL R-05	PARCHE	C	C	C	3	C	C2
PARCHE VIPAL R-06	PARCHE	C	C	C	3	C	C2
PARCHE VIPAL RAC08	PARCHE	C	C	C	3	C	C2
PARCHE VIPAL RAC14	PARCHE	C	C	C	3	C	C2
PARCHE VIPAL RAC20	PARCHE	C	C	C	3	C	C2
PARCHE VIPAL RAC22	PARCHE	C	C	C	3	C	C2
PARCHE VIPAL RAC24	PARCHE	C	C	C	3	C	C2
PARCHE VIPAL RAC25	PARCHE	C	C	C	3	C	C2
PARCHE VIPAL RAC35	PARCHE	C	C	C	3	C	C2
PARCHE VIPAL RAC40	PARCHE	C	C	C	3	C	C2
PARCHE VIPAL RAC42	PARCHE	C	C	C	3	C	C2
PARCHE VIPAL RAC44	PARCHE	C	C	C	3	C	C2
PARCHE VIPAL RBM-02	PARCHE	C	C	C	3	C	C2
PARCHE VIPAL VD7	PARCHE	C	C	C	3	C	C2
PARCHE VIPAL VD8	PARCHE	C	C	C	3	C	C2
PARCHE VIPAL VD9	PARCHE	C	C	C	3	C	C2
PARCHE VIPAL VF-6	PARCHE	C	C	C	3	C	C2



## **Anexo 14. Estrategia de Pronósticos**

Anexo 14.1. Estrategia para realizar análisis de pronósticos

CLASIFICACIÓN	ESTACIONALIDAD	PATRÓN DE DEMANDA				MODELO	
		SUAVIZADO	ERRÁTICO	INTERMITENTE	GRUMOSO	CORTO PLAZO	MEDIANO PLAZO
A	X					<ul style="list-style-type: none"> <li>Estacional aditivo</li> <li>Estacional multiplicativo</li> </ul>	
		X	X			<ul style="list-style-type: none"> <li>Suavizado exponencial simple (SES)</li> <li>Suavizado exponencial doble (SED)</li> </ul>	<ul style="list-style-type: none"> <li>Regresión lineal</li> <li>Regresión cuadrática</li> <li>Regresión exponencial</li> </ul>
				X	X	<ul style="list-style-type: none"> <li>Método Syntetos and Boyland (SAB)</li> </ul>	<ul style="list-style-type: none"> <li>Regresión lineal</li> <li>Regresión cuadrática</li> <li>Regresión exponencial</li> </ul>
B		X	X			<ul style="list-style-type: none"> <li>Suavizado exponencial simple (SES)</li> <li>Suavizado exponencial doble (SED)</li> </ul>	<ul style="list-style-type: none"> <li>Regresión cuadrática</li> <li>Regresión exponencial</li> </ul>
				X	X	<ul style="list-style-type: none"> <li>Método Syntetos and Boyland (SAB)</li> </ul>	<ul style="list-style-type: none"> <li>Regresión cuadrática</li> <li>Regresión exponencial</li> </ul>
C		X	X			<ul style="list-style-type: none"> <li>Suavizado exponencial simple (SES)</li> </ul>	
				X	X	<ul style="list-style-type: none"> <li>Método Syntetos and Boyland (SAB)</li> </ul>	

### Anexo 14.2. Desarrollo de la estrategia de pronósticos para los artículos Clase A

Data Histórica		DEMANDA REAL 2012											
PRODUCTO	FAMILIA	ENERO	FEBRERO	MARZO	ABRIL	MAYO	JUNIO	JULIO	AGOSTO	SEPTIEMBRE	OCTUBRE	NOVIEMBRE	DICIEMBRE
PARCHE SCHRADER SBR1	PARCHE	15590	16771	12966	19043	10410	19336	20141	15652	25124	2021	18807	20107
PARCHE VIPAL R-01	PARCHE	20434	18331	9495	9792	19131	9115	13310	15808	15435	19242	9813	16779
PARCHE VIPAL VD1	PARCHE	3893	2483	1832	1730	2867	3023	2949	4675	2571	3362	2869	3615
CAMARA 300-18 S & M TR-4	CAMARA	1304	1012	935	967	1242	671	245	335	765	840	752	975
CAMARA 300-18 SWALLOW TR4	CAMARA	905	649	561	1402	362	507	939	401	1098	886	692	1084
CAMARA FR-13 SUPER BULL PREMIUN TR-13	CAMARA	1115	900	767	998	838	856	727	996	794	1169	990	728
PARCHE DC110-30 NINGBO	PARCHE	327	504	306	965	8169	27607	19458	4094	18158	39008	12633	20594
PARCHE SCHRADER SBMC2	PARCHE	1265	1480	1108	1521	1116	408	1191	2443	1625	2187	1005	1938
PARCHE SCHRADER SBRO	PARCHE	12936	8677	14998	10616	16456	18964	23777	2581	2387	1870	1878	2190
PARCHE VIPAL R-00	PARCHE	20885	13358	4799	8752	9265	9858	9466	8443	10873	12334	8928	8836
CAMARA 700-16 SUPER BULL PREMIUN TR177A	CAMARA	106	692	506	497	156	536	397	577	282	404	385	367
CAMARA 750-16 SUPER BULL PREMIUN TR177A	CAMARA	256	374	405	350	349	449	402	378	379	406	404	540
CAMARA 825-16 SUPER BULL PREMIUN TR177A	CAMARA	107	415	131	253	105	39	135	306	49	107	107	117
CAMARA ER-12 SUPER BULL PREMIUN TR-13	CAMARA	855	710	598	687	559	628	512	558	414	391	673	697
CAMARA FR-14 SUPER BULL PREMIUN TR-13	CAMARA	811	615	572	668	515	541	516	540	447	743	495	575
CAMARA KR-15 SUPER BULL PREMIUN TR-13	CAMARA	237	272	210	216	251	213	217	306	330	308	150	158
CAMARA KR-16 SUPER BULL PREMIUN TR-13	CAMARA	271	236	243	224	233	222	299	422	427	395	308	249
PARCHE M-48 EVERWINNER	PARCHE	2591	772	932	1250	1193	1736	2069	1615	1734	1092	1458	3006
PARCHE SCHRADER SBMC3	PARCHE	636	653	783	1165	793	892	955	901	594	767	830	821
PARCHE SCHRADER SBR2	PARCHE	2471	2316	2584	2243	3129	4356	2785	2027	2485	2195	3896	3299
PARCHE SCHRADER SBRC10	PARCHE	1294	1100	959	1029	980	1135	1415	927	916	859	1113	912
PARCHE VIPAL VD2	PARCHE	1036	960	956	824	1098	754	1102	835	1135	957	941	990
<b>TOTAL</b>		<b>89325</b>	<b>73280</b>	<b>56646</b>	<b>65192</b>	<b>79217</b>	<b>101846</b>	<b>103007</b>	<b>64820</b>	<b>88022</b>	<b>91543</b>	<b>69127</b>	<b>88577</b>
<b># PERIODO</b>		<b>1</b>	<b>2</b>	<b>3</b>	<b>4</b>	<b>5</b>	<b>6</b>	<b>7</b>	<b>8</b>	<b>9</b>	<b>10</b>	<b>11</b>	<b>12</b>

		DEMANDA REAL 2013											
PRODUCTO	FAMILIA	ENERO	FEBRERO	MARZO	ABRIL	MAYO	JUNIO	JULIO	AGOSTO	SEPTIEMBRE	OCTUBRE	NOVIEMBRE	DICIEMBRE
PARCHE SCHRADER SBR1	PARCHE	14541	17874	18013	23510	10208	18619	22009	16747	26882	3553	19053	21465
PARCHE VIPAL R-01	PARCHE	23934	18507	10045	10691	20256	11822	14157	16519	16515	20588	10499	16811
PARCHE VIPAL VD1	PARCHE	3295	2656	1532	1851	3067	3127	2727	5002	2750	3383	3069	3440
CAMARA 300-18 S & M TR-4	CAMARA	1392	1161	1017	978	1114	600	262	358	818	856	727	1043
CAMARA 300-18 SWALLOW TR4	CAMARA	919	694	600	1607	302	542	1004	322	1174	947	683	1159
CAMARA FR-13 SUPER BULL PREMIUN TR-13	CAMARA	1192	962	820	1067	896	915	777	1065	849	1250	1059	778
PARCHE DC110-30 NINGBO	PARCHE	407	496	314	1018	8740	29539	19080	4380	19428	40540	12447	21965
PARCHE SCHRADER SBMC2	PARCHE	1332	1570	1185	1627	1194	423	1274	2614	1738	2333	1091	2073
PARCHE SCHRADER SBRO	PARCHE	13734	9284	16047	11359	17607	20291	23301	2309	2447	1893	2009	2405
PARCHE VIPAL R-00	PARCHE	18416	13312	11204	8294	12053	8294	10128	7963	9634	10210	9951	9547
CAMARA 700-16 SUPER BULL PREMIUN TR177A	CAMARA	701	419	488	414	509	519	407	189	301	439	349	646
CAMARA 750-16 SUPER BULL PREMIUN TR177A	CAMARA	406	257	308	298	387	480	347	404	358	452	331	377
CAMARA 825-16 SUPER BULL PREMIUN TR177A	CAMARA	105	443	140	143	167	117	133	199	127	114	114	125
CAMARA ER-12 SUPER BULL PREMIUN TR-13	CAMARA	751	748	639	735	598	607	547	597	442	418	720	745
CAMARA FR-14 SUPER BULL PREMIUN TR-13	CAMARA	867	657	611	714	550	578	552	577	478	795	529	615
CAMARA KR-15 SUPER BULL PREMIUN TR-13	CAMARA	264	280	214	231	268	227	232	327	363	350	139	168
CAMARA KR-16 SUPER BULL PREMIUN TR-13	CAMARA	300	252	260	228	249	237	288	462	456	422	330	265
PARCHE M-48 EVERWINNER	PARCHE	3050	869	954	1380	1169	1964	2213	1728	1962	1261	1399	3176
PARCHE SCHRADER SBMC3	PARCHE	680	698	891	1139	848	981	1048	974	635	799	898	878
PARCHE SCHRADER SBR2	PARCHE	2643	2478	2764	2400	3348	4660	2979	2168	2658	2348	4168	3529
PARCHE SCHRADER SBRC10	PARCHE	1063	856	919	994	1369	1214	1300	1098	980	1026	1404	1296
PARCHE VIPAL VD2	PARCHE	1215	920	1022	988	1067	1020	965	1000	1107	916	899	1273
<b>TOTAL</b>		<b>91207</b>	<b>75393</b>	<b>69987</b>	<b>71666</b>	<b>85966</b>	<b>106776</b>	<b>105730</b>	<b>67002</b>	<b>92102</b>	<b>94893</b>	<b>71868</b>	<b>93779</b>
<b># PERIODO</b>		<b>13</b>	<b>14</b>	<b>15</b>	<b>16</b>	<b>17</b>	<b>18</b>	<b>19</b>	<b>20</b>	<b>21</b>	<b>22</b>	<b>23</b>	<b>24</b>



PRODUCTO	FAMILIA	DEMANDA REAL 2014											
		ENERO	FEBRERO	MARZO	ABRIL	MAYO	JUNIO	JULIO	AGOSTO	SEPTIEMBRE	OCTUBRE	NOVIEMBRE	DECIEMBRE
PARCHE SCHRADER SBR1	PARCHE	16722	19405	18414	25892	14039	22561	24536	19259	30914	2360	21910	23534
PARCHE VIPAL R-01	PARCHE	26374	22432	11436	12294	23294	12445	16280	18996	16772	22526	12073	18182
PARCHE VIPAL VD1	PARCHE	3559	2939	1646	2128	3296	3596	3136	5326	3334	3890	3529	3956
CAMARA 300-18 S & M TR-4	CAMARA	1554	1220	1158	1124	1280	689	186	400	940	984	801	1084
CAMARA 300-18 SWALLOW TR4	CAMARA	922	774	689	1848	321	623	1154	370	1350	1088	727	1332
CAMARA FR-13 SUPER BULL PREMIUN TR-13	CAMARA	1370	1106	942	1226	1030	1052	893	1224	976	1437	1217	894
PARCHE DC110-30 NINGBO	PARCHE	364	570	360	940	10051	32819	21482	4944	22342	46621	14314	24109
PARCHE SCHRADER SBMC2	PARCHE	1531	1805	1247	1870	1373	451	1464	3005	1998	2567	1174	2383
PARCHE SCHRADER SBRO	PARCHE	15793	10676	17304	13062	17948	23334	26796	2436	2813	2176	2080	2558
PARCHE VIPAL R-00	PARCHE	26928	15193	7009	9457	13860	9422	9347	9272	13378	18871	5693	10748
CAMARA 700-16 SUPER BULL PREMIUN TR177A	CAMARA	462	481	921	475	437	412	353	448	461	619	401	282
CAMARA 750-16 SUPER BULL PREMIUN TR177A	CAMARA	558	582	492	676	674	551	456	568	442	634	740	410
CAMARA 825-16 SUPER BULL PREMIUN TR177A	CAMARA	120	509	161	164	191	134	152	228	145	131	131	143
CAMARA ER-12 SUPER BULL PREMIUN TR-13	CAMARA	863	860	619	960	722	697	628	686	473	480	828	856
CAMARA FR-14 SUPER BULL PREMIUN TR-13	CAMARA	996	755	702	821	632	664	634	663	549	914	608	707
CAMARA KR-15 SUPER BULL PREMIUN TR-13	CAMARA	303	321	245	265	308	237	266	376	440	414	159	181
CAMARA KR-16 SUPER BULL PREMIUN TR-13	CAMARA	344	289	298	262	286	260	342	542	524	473	390	293
PARCHE M-48 EVERWINNER	PARCHE	3679	826	1097	1586	1344	2258	2544	1987	2256	1220	1608	3882
PARCHE SCHRADER SBMC3	PARCHE	782	791	909	1321	975	1128	1320	1119	730	918	1021	1021
PARCHE SCHRADER SBR2	PARCHE	3039	2849	3178	2760	3850	5358	3425	2493	3056	2700	4793	4058
PARCHE SCHRADER SBRC10	PARCHE	877	984	826	798	1574	1396	2069	1607	1126	834	1614	1835
PARCHE VIPAL VD2	PARCHE	1512	1172	1175	906	997	1172	1569	1494	1158	938	1010	1141
<b>TOTAL</b>		<b>108652</b>	<b>86539</b>	<b>70828</b>	<b>80835</b>	<b>98482</b>	<b>121259</b>	<b>119032</b>	<b>77443</b>	<b>106177</b>	<b>112795</b>	<b>76821</b>	<b>103589</b>
<b># PERIODO</b>		<b>25</b>	<b>26</b>	<b>27</b>	<b>28</b>	<b>29</b>	<b>30</b>	<b>31</b>	<b>32</b>	<b>33</b>	<b>34</b>	<b>35</b>	<b>36</b>

HORIZONTE DE CORTO PLAZO

PRODUCTO	ESTACIONALIDAD	COEFICIENTE DE VARIABILIDAD	R^2	ADITIVO		MULTIPLICATIVO		SES				SED			MODELO ELEGIDO
				MAPE	MAPE	Alpha (α)	MAPE	MAD	MSE	Alpha (α)	Trend (γ)	MAPE	MAD	MSE	
PARCHE SCHRADER SBR1	SÍ	0.11668	0.05780386	8	6										ESTACIONAL - MULT
PARCHE VIPAL R-01	SÍ	0.07523	0.04106656	4	3										ESTACIONAL - MULT
PARCHE VIPAL VD1	SÍ	0.06869	0.09162766	4.5	4.4										ESTACIONAL - MULT
CAMARA 300-18 S & M TR-4	SÍ	0.14868	0.00028743	6.82	4.72										ESTACIONAL - MULT
CAMARA 300-18 SWALLOW TR4	SÍ	0.20653	0.03648817	6.84	4.9										ESTACIONAL - MULT
CAMARA FR-13 SUPER BULL PREMIUN TR-13	SÍ	0.02431	0.17247565	2.252	1.855										ESTACIONAL - MULT
PARCHE DC110-30 NINGBO	SÍ	0.92096	0.08242892	61	3										ESTACIONAL - MULT
PARCHE SCHRADER SBMC2	SÍ	0.14508	0.09438359	4.57	1.94										ESTACIONAL - MULT
PARCHE SCHRADER SBRO	SÍ	0.56538	0.01312492	11	3										ESTACIONAL - MULT
PARCHE VIPAL R-00	NO	0.20341	0.00179741			0.073	27	3185	21931708	0.3491	0.1234	32	3390	24887391	SES
CAMARA 700-16 SUPER BULL PREMIUN TR177A	NO	0.10285	0.01032263			0.0375	23.6	99.7	22044.5	0.5015	0.1057	29.4	128.2	27406.4	SES
CAMARA 750-16 SUPER BULL PREMIUN TR177A	NO	0.03038	0.38967446			0.4005	19.5	91	11891.8	0.5118	0.1228	20.7	92	12594.1	SED
CAMARA 825-16 SUPER BULL PREMIUN TR177A	NO	0.30735	0.0002804			0.0371	26.53	55.06	9750.69	0.2876	0.0544	36.1	65.4	12807.1	SES
CAMARA ER-12 SUPER BULL PREMIUN TR-13	SÍ	0.04255	0.04074268	4.54	3.97										ESTACIONAL - MULT
CAMARA FR-14 SUPER BULL PREMIUN TR-13	SÍ	0.03035	0.08203492	2.296	1.855										ESTACIONAL - MULT
CAMARA KR-15 SUPER BULL PREMIUN TR-13	SÍ	0.07935	0.06686255	4.618	3.105										ESTACIONAL - MULT
CAMARA KR-16 SUPER BULL PREMIUN TR-13	SÍ	0.07304	0.18456297	3.299	2.2657										ESTACIONAL - MULT
PARCHE M-48 EVERWINNER	SÍ	0.21035	0.07390258	6.7	4.04										ESTACIONAL - MULT
PARCHE SCHRADER SBMC3	SÍ	0.03451	0.19079744	2.95	2.35										ESTACIONAL - MULT
PARCHE SCHRADER SBR2	SÍ	0.06035	0.15997966	2.58	1.85										ESTACIONAL - MULT
PARCHE SCHRADER SBRC10	NO	0.10720	0.16440115			0.1926	22	268	112096	0.8786	0.0774	22	282	133734	SES
PARCHE VIPAL VD2	NO	0.03299	0.19925253			0.99	14.3	160.5	40073.4	0.99	0.001	14.4	161.7	40527.2	VER LARGO PLAZO

HORIZONTE DE LARGO PLAZO

NO ESTACIONALES

SOFTWARE: MINITAB

PRODUCTO	MAPE			Seleccionado	MAD Asociado
	Ajuste lineal	Ajuste cuadrático	Ajuste exponencial		
PARCHE VIPAL R-00	28	28	25	EXPONENCIAL	2874
CAMARA 700-16 SUPER BULL PREMIUN TR177A	33.9	33.7	31.4	EXPONENCIAL	109.5
CAMARA 750-16 SUPER BULL PREMIUN TR177A	19.34	17.95	18.72	CUADRATICO	72.07
CAMARA 825-16 SUPER BULL PREMIUN TR177A	47.4	47.4	35	EXPONENCIAL	58.5
PARCHE SCHRADER SBRC10	19.5	17.9	18.7	CUADRATICO	200.4
PARCHE VIPAL VD2	11.5	11.5	11.2	EXPONENCIAL	121.9

PRODUCTO	PRONÓSTICOS 2015												DEMANDA ANUAL	D prom	DESV. EST.
	ENERO	FEBRERO	MARZO	ABRIL	MAYO	JUNIO	JULIO	AGOSTO	SEPTIEMBRE	OCTUBRE	NOVIEMBRE	DECIEMBRE			
PARCHE VIPAL R-00	10870.34	10886.81	10903.29	10919.80	10936.34	10952.90	10969.49	10986.10	11002.74	11019.40	11036.09	11052.80	131536.13	10961.34	57.26
CAMARA 700-16 SUPER BULL PREMIUN TR177A	464.55	467.31	470.09	472.88	475.69	478.51	481.36	484.22	487.09	489.99	492.90	495.83	5760.41	480.03	9.81
CAMARA 750-16 SUPER BULL PREMIUN TR177A	627.24	643.40	660.02	677.12	694.68	712.71	731.22	750.19	769.63	789.54	809.92	830.77	8696.44	724.70	63.92
CAMARA 825-16 SUPER BULL PREMIUN TR177A	161.66	162.55	163.45	164.35	165.26	166.17	167.09	168.01	168.94	169.87	170.81	171.75	1999.91	166.66	3.17
PARCHE SCHRADER SBRC10	1604.98	1654.12	1705.23	1758.31	1813.37	1870.40	1929.40	1990.38	2053.33	2118.25	2185.15	2254.02	22936.94	1911.41	203.95
PARCHE VIPAL VD2	1191.50	1199.80	1208.16	1216.58	1225.06	1233.60	1242.20	1250.86	1259.58	1268.36	1277.20	1286.10	14859.02	1238.25	29.69

ESTACIONALES

SOFTWARE: POM

PRODUCTO	PRONÓSTICOS 2015												DEMANDA ANUAL	D prom	DESV. EST.
	ENERO	FEBRERO	MARZO	ABRIL	MAYO	JUNIO	JULIO	AGOSTO	SEPTIEMBRE	OCTUBRE	NOVIEMBRE	DECIEMBRE			
PARCHE SCHRADER SBR1	18972.70	21839.85	19845.06	27519.51	13917.93	24433.17	26899.08	20827.28	33431.38	3213.28	24139.21	26296.56	261335.01	21777.92	7342.67
PARCHE VIPAL R-01	28155.03	23612.63	12350.33	13052.06	24982.12	13269.40	17433.51	20463.11	19494.04	24887.18	12903.49	20710.62	231313.52	19276.13	5259.82
PARCHE VIPAL VD1	4094.41	3065.95	1909.29	2164.59	3505.89	3696.86	3347.66	5700.07	3276.87	4035.57	3589.44	4181.40	42568.00	3547.33	937.18
CAMARA 300-18 S & M TR-4	1617.39	1291.70	1182.56	1168.16	1386.97	747.71	266.61	415.94	959.40	1019.95	869.48	1182.64	12108.50	1009.04	373.24
CAMARA 300-18 SWALLOW TR4	1085.16	832.79	727.07	1905.68	390.43	657.10	1217.12	432.60	1423.42	1147.98	829.70	1404.98	12054.00	1004.50	426.43
CAMARA FR-13 SUPER BULL PREMIUN TR-13	1497.61	1208.83	1030.06	1340.40	1125.74	1149.77	976.28	1337.94	1066.68	1570.49	1330.19	977.52	14611.50	1217.63	189.76
PARCHE DC110-30 NINGBO	433.59	618.30	385.60	1157.25	10596.73	35400.71	23654.89	5277.21	23554.92	49624.16	15513.45	26245.69	192462.49	16038.54	15316.22
PARCHE SCHRADER SBMC2	1651.97	1942.48	1420.42	2007.25	1473.20	514.62	1571.65	3224.83	2144.45	2839.45	1310.53	2557.65	22658.50	1888.21	706.51
PARCHE SCHRADER SBR0	16514.64	11135.55	18836.93	13624.20	20297.26	24337.82	28782.39	2867.59	2976.40	2312.26	2327.57	2786.39	146799.00	12233.25	9172.87
CAMARA ER-12 SUPER BULL PREMIUN TR-13	988.03	923.53	743.64	944.30	747.04	771.35	671.95	733.24	530.68	513.41	884.56	915.28	9367.00	780.58	149.91
CAMARA FR-14 SUPER BULL PREMIUN TR-13	1088.75	825.32	767.51	896.95	690.97	725.98	692.98	724.75	600.16	998.30	664.48	772.35	9448.50	787.37	137.06
CAMARA KR-15 SUPER BULL PREMIUN TR-13	326.31	355.16	272.26	289.32	336.05	276.12	290.55	409.98	459.02	434.31	182.86	206.55	3838.50	319.88	81.50
CAMARA KR-16 SUPER BULL PREMIUN TR-13	370.13	314.63	324.34	289.50	310.96	291.64	376.81	576.51	569.69	522.80	415.75	327.26	4690.00	390.83	102.42
PARCHE M-48 EVERWINNER	3819.80	1022.34	1230.73	1735.05	1531.34	2449.93	2812.12	2195.76	2447.44	1478.42	1846.33	4137.26	26706.50	2225.54	935.53
PARCHE SCHRADER SBMC3	854.78	873.21	1055.31	1480.48	1065.83	1221.65	1347.91	1219.47	798.16	1012.88	1120.11	1107.70	13157.50	1096.46	193.44
PARCHE SCHRADER SBR2	3323.40	3115.49	3475.45	3017.63	4209.52	5859.24	3745.71	2726.22	3342.16	2952.44	5240.83	4437.42	45445.50	3787.12	930.30

Anexo 14.3. Desarrollo de la estrategia de pronósticos para los artículos Clase B

Data Histórica	DEMANDA REAL 2014												R²	CV²	PATRÓN VARIABILIDAD
PRODUCTO	ENERO	FEBRERO	MARZO	ABRIL	MAYO	JUNIO	JULIO	AGOSTO	SEPTIEMBRE	OCTUBRE	NOVIEMBRE	DICIEMBRE			
CAMARA 300-18 HUNG-A TR-4	237	239	155	310	697	489	432	642	176	214	354	389	0.24620035	0.2206	Suavizado
CAMARA 300-18 KENDA TR-4	553	298	358	346	330	294	273	81	207	155	260	270	0.05262751	0.1522	Suavizado
CAMARA 400-8 SWALLOW TR87C	423	232	271	447	238	89	292	375	231	279	420	636	0.01405173	0.1703	Suavizado
PARCHE DC110-40 NINGBO	310	78	209	223	8068	2819	8696	3739	1193	19624	1658	398	0.40297411	1.9982	Errática
PARCHE SCHRADER SBF1	749	662	384	130	5455	3162	3299	6606	661	15040	8730	4542	0.55424243	1.0583	Errática
PARCHE SCHRADER SBF2	2036	1758	2588	937	2604	2989	1678	2436	1825	1777	2999	4048	0.15816279	0.1147	Suavizado
PARCHE SCHRADER SBF3	3179	2396	60	24	2968	272	2150	1064	0	0	5345	6224	0.29476691	1.0925	Errática
PARCHE SCHRADER SBMC4	313	355	312	469	442	700	1048	1711	427	499	803	743	0.04896925	0.3495	Suavizado
PARCHE SCHRADER SBMC5	349	300	222	138	431	270	455	1073	400	409	217	499	0.04772739	0.3332	Suavizado
PARCHE SCHRADER SBR3	2386	1468	2238	863	3590	5514	3414	1945	2453	2791	2592	2171	0.13837938	0.1856	Suavizado
PARCHE SCHRADER SBRB1	7055	10631	1850	323	24652	5260	11237	1511	1291	3132	23126	20491	0.5441073	0.8618	Errática
PARCHE VIPAL R-02	4129	3246	1525	3130	3233	3192	2359	4957	1668	6862	2568	2002	0.11568153	0.1989	Suavizado
PARCHE VIPAL R-03	2419	1120	1572	1327	2029	790	4046	2719	1951	2239	606	1715	0.04747432	0.2283	Suavizado
PARCHE VIPAL R-04	1679	1514	2008	1590	1102	1476	3120	1840	1662	1958	1429	1543	0.00010416	0.0748	Suavizado
PARCHE VIPAL RBM-01	5356	6743	3833	4298	9606	4878	4877	1895	2288	5743	3926	4142	0.26442502	0.1636	Suavizado
CAMARA 1200R20 SUPER BULL PREMIUN TR78A	61	79	16	15	46	37	28	104	45	0	33	25	0.01878482	0.4687	Suavizado
CAMARA 300-17 SWALLOW TR4	16	10	93	221	59	101	282	293	384	258	170	91	0.01008519	0.4971	Errática
CAMARA 410-18 SWALLOW TR-4	72	89	128	102	140	60	152	253	171	206	266	159	0.17798649	0.1801	Suavizado
CAMARA 700-15 SUPER BULL PREMIUN TR177A	83	114	86	65	127	88	80	72	13	0	144	57	0.03976143	0.2669	Suavizado
CAMARA KR-14 SUPER BULL PREMIUN TR-13	51	109	69	89	104	137	109	145	236	115	103	102	0.02156481	0.1499	Suavizado
PARCHE COLD PATCH L-24	698	92	427	353	403	1267	246	244	236	529	653	1628	0.05781621	0.5950	Errática
PARCHE SCHRADER SBMC6	112	61	85	142	138	30	199	120	66	137	86	272	0.19491366	0.2712	Suavizado
PARCHE SCHRADER SBR4	1505	1040	1442	268	2462	1400	1933	2596	1303	84	1660	1682	0.08820217	0.2435	Suavizado
PARCHE SCHRADER SBRC12	570	560	572	48	773	437	720	660	890	860	683	955	0.33228753	0.1294	Suavizado
PARCHE SCHRADER SBRC14	582	421	17	100	620	319	928	470	445	389	540	772	0.43529821	0.2734	Suavizado
PARCHE SCHRADER SBRC40	206	143	182	168	144	149	134	242	131	143	82	107	0.1792445	0.0719	Suavizado
PARCHE VIPAL RAC10	464	379	271	493	526	344	1278	1706	386	755	637	498	0.08247046	0.4006	Suavizado
PARCHE VIPAL VD3	688	646	389	317	511	440	464	916	526	455	341	470	0.00150601	0.0971	Suavizado
PARCHE VIPAL VD4	356	402	234	236	251	336	256	409	180	377	146	446	0.02154698	0.0955	Suavizado
PARCHE VIPAL VD5	293	248	203	88	240	185	554	329	136	114	340	244	0.13672381	0.2345	Suavizado
PARCHE VIPAL VF-8	257	205	565	2150	1022	1188	2184	331	1704	1360	527	697	0.00455964	0.4457	Suavizado
	37187	35638	22364	19410	73011	38712	56923	41484	23285	66504	61444	58018			
	1	2	3	4	5	6	7	8	9	10	11	12			

HORIZONTE DE CORTO PLAZO										
PRODUCTO	SED					SES				MODELO ELEGIDO
	Alpha ( $\alpha$ )	Trend ( $\gamma$ )	MAPE	MAD	MSD	Alpha ( $\alpha$ )	MAPE	MAD	MSD	
CAMARA 300-18 HUNG-A TR-4	0.6005	0.0181	50.2	138.7	37191.7	0.001	46.4	139.4	28843.2	SES
CAMARA 300-18 KENDA TR-4	0.2696	0.5424	37.54	77.72	9218.86	0.5713	41.4	75.35	9851.7	SED
CAMARA 400-8 SWALLOW TR87C	1.9216	0.01	59.7	163.1	39645.6	0.0811	50	114.4	19775.8	SES
PARCHE DC110-40 NINGBO	0.4068	0.2982	450	5060	44984378	0.0556	594	3844	32976136	SES
PARCHE SCHRADER SBF1	0.4006	0.2899	179	2886	17900147	0.3111	156	2819	17646960	SES
PARCHE SCHRADER SBF2	0.1788	0.01	34	647	562085	0.1047	35	677	662280	SED
PARCHE SCHRADER SBF3	0.5682	0.01	1090	1844	4795375	0.7782	778	1667	4643349	SES
PARCHE SCHRADER SBMC4	0.5005	0.01	44	268	162310	0.1998	40	270	160416	SES
PARCHE SCHRADER SBMC5	0.3074	0.01	51.6	180	61486.5	0.1117	37.4	143.3	58363.8	SES
PARCHE SCHRADER SBR3	0.8315	0.0194	53	1111	1957189	0.001	42	825	1277615	SES
PARCHE SCHRADER SBRB1	0.1337	0.1055	287	7307	77778075	0.1385	400	7688	83362240	SED
PARCHE VIPAL R-02	0.3964	0.2918	55	1548	3381331	0.0556	37	1115	2265018	SES
PARCHE VIPAL R-03	0.2487	0.2322	65	810	1119838	0.1308	49	685	929276	SES
PARCHE VIPAL R-04	0.2267	0.3275	23	419	332997	0.0795	16	310	252185	SES
PARCHE VIPAL RBM-01	0.3432	0.279	45	1773	5257642	0.0645	37	1432	4053339	SES
CAMARA 1200R20 SUPER BULL PREMIUN TR78A	0.3322	0.2802	74.31	25.92	1345.94	0.9288	52.214	21.653	820.412	SES
CAMARA 300-17 SWALLOW TR4	0.9724	0.1435	269.5	112.9	15877.2	0.9966	66.8	83.1	10195	SES
CAMARA 410-18 SWALLOW TR-4	0.2045	0.3366	30.97	37.77	2575.63	0.4474	31.38	44.99	3293.86	SED
CAMARA 700-15 SUPER BULL PREMIUN TR177A	0.232	0.3587	61.52	32.95	2209.08	0.1595	76.97	33.62	1831.65	SED
CAMARA KR-14 SUPER BULL PREMIUN TR-13	0.4301	0.2674	39.58	40.07	2497.82	0.3236	30.93	36.05	2066.59	SES
PARCHE COLD PATCH L-24	0.1938	0.2814	75	355	227127	0.0169	112	348	195560	SES
PARCHE SCHRADER SBMC6	0.2473	0.3054	66.72	59.89	5194.93	0.1	52.74	50.12	4400.47	SES
PARCHE SCHRADER SBR4	0.3316	0.2987	255	781	872338	0.0321	207	552	541586	SES
PARCHE SCHRADER SBRC12	0.1919	0.2778	121.2	167.7	48555.5	0.3017	106.1	175.6	53807.2	SED
PARCHE SCHRADER SBRC14	0.2019	0.3477	291.8	203.3	72846.8	0.0363	291	191.8	62678.9	SES
PARCHE SCHRADER SBRC40	0.2123	0.3437	21.88	31.19	1763.83	0.1994	25.69	34.92	1811.9	SED
PARCHE VIPAL RAC10	0.4247	0.2054	63	356	228313	0.001	31	277	219906	SES
PARCHE VIPAL VD3	0.2222	0.2383	25.5	126.3	36357.3	0.1125	23.9	123.3	29059.3	SES
PARCHE VIPAL VD4	0.3156	0.3111	33.9	91	12002.7	0.1434	34.4	92.2	10374.4	SED
PARCHE VIPAL VD5	0.0855	0.01	49	90.9	15628.6	0.0903	54	95.6	16168.5	SED
PARCHE VIPAL VF-8	0.2265	0.2568	89	547	502006	0.0919	92	595	508907	SED

HORIZONTE DE LARGO PLAZO				
PRODUCTO	MAPE		Seleccionado	MAD Asociado
	Ajuste lineal	Ajuste exponencial		
CAMARA 300-18 HUNG-A TR-4	45.3	38.4	EXPONENCIAL	128.1
CAMARA 300-18 KENDA TR-4	32.32	31.5	EXPONENCIAL	61.24
CAMARA 400-8 SWALLOW TR87C	45.1	40.1	EXPONENCIAL	78.31
PARCHE DC110-40 NINGBO	550	205	EXPONENCIAL	3620
PARCHE SCHRADER SBF1	254	142	EXPONENCIAL	2609
PARCHE SCHRADER SBF2	31	30	EXPONENCIAL	599
PARCHE SCHRADER SBF3	912	415	EXPONENCIAL	1769
PARCHE SCHRADER SBMC4	35	29	EXPONENCIAL	222
PARCHE SCHRADER SBMC5	41.6	36.3	EXPONENCIAL	132.4
PARCHE SCHRADER SBR3	38	34	EXPONENCIAL	789
PARCHE SCHRADER SBRB1	363	199	EXPONENCIAL	7062
PARCHE VIPAL R-02	38	34	EXPONENCIAL	1031
PARCHE VIPAL R-03	52	47	EXPONENCIAL	713
PARCHE VIPAL R-04	18	17	EXPONENCIAL	309
PARCHE VIPAL RBM-01	34	33	EXPONENCIAL	1358
CAMARA 1200R20 SUPER BULL PREMIUN TR78A	57.13	47.36	EXPONENCIAL	17.66
CAMARA 300-17 SWALLOW TR4	138.81	91.3	EXPONENCIAL	97.9
CAMARA 410-18 SWALLOW TR-4	24.47	24.34	EXPONENCIAL	32.29
CAMARA 700-15 SUPER BULL PREMIUN TR177A	36.33	30.8	EXPONENCIAL	20.53
CAMARA KR-14 SUPER BULL PREMIUN TR-13	26.05	24.75	EXPONENCIAL	29.3
PARCHE COLD PATCH L-24	87	63	EXPONENCIAL	282
PARCHE SCHRADER SBMC6	58.84	51.41	EXPONENCIAL	47.03
PARCHE SCHRADER SBR4	66.12	57.83	EXPONENCIAL	377
PARCHE SCHRADER SBRC12	102	88.9	EXPONENCIAL	173.3
PARCHE SCHRADER SBRC14	223.2	139.9	EXPONENCIAL	188.4
PARCHE SCHRADER SBRC40	15.31	13.8	EXPONENCIAL	21.37
PARCHE VIPAL RAC10	44	35	EXPONENCIAL	250
PARCHE VIPAL VD3	22.5	21.1	EXPONENCIAL	109.8
PARCHE VIPAL VD4	33.15	31	EXPONENCIAL	85.17
PARCHE VIPAL VD5	47.6	43.1	EXPONENCIAL	89.9
PARCHE VIPAL VF-8	81	60	EXPONENCIAL	531

PRODUCTO	PRONÓSTICOS 2015												DEMANDA ANUAL	D prom
	ENERO	FEBRERO	MARZO	ABRIL	MAYO	JUNIO	JULIO	AGOSTO	SEPTIEMBRE	OCTUBRE	NOVIEMBRE	DICIEMBRE		
CAMARA 300-18 HUNG-A TR-4	388.89	399.98	411.39	423.12	435.19	447.61	460.37	473.50	487.01	500.90	515.19	529.88	5473.04	456.09
CAMARA 300-18 KENDA TR-4	158.74	147.08	136.27	126.25	116.98	108.38	100.42	93.04	86.20	79.86	73.99	68.56	1295.77	107.98
CAMARA 400-8 SWALLOW TR87C	366.99	379.10	391.61	404.53	417.87	431.66	445.90	460.61	475.80	491.50	507.71	524.46	5297.73	441.48
PARCHE DC110-40 NINGBO	5971.46	7607.64	9692.14	12347.79	15731.10	20041.42	25532.79	32528.78	41441.68	52796.72	67263.05	85693.16	376647.75	31387.31
PARCHE SCHRADER SBF1	11524.19	15109.07	19809.11	25971.20	34050.17	44642.30	58529.35	76736.32	100606.99	131903.21	172934.88	226730.43	918547.21	76545.60
PARCHE SCHRADER SBF2	2868.61	2994.57	3126.07	3263.34	3406.63	3556.22	3712.38	3875.39	4045.57	4223.21	4408.66	4602.25	44082.91	3673.58
PARCHE SCHRADER SBF3	1145.57	1247.22	1357.88	1478.36	1609.53	1752.34	1907.82	2077.10	2261.40	2462.04	2680.50	2918.33	22898.09	1908.17
PARCHE SCHRADER SBMC4	984.47	1071.17	1165.50	1268.13	1379.81	1501.31	1633.52	1777.37	1933.89	2104.19	2289.49	2491.11	19599.96	1633.33
PARCHE SCHRADER SBMC5	477.92	501.68	526.62	552.80	580.27	609.12	639.40	671.18	704.54	739.56	776.33	814.92	7594.34	632.86
PARCHE SCHRADER SBR3	2897.88	2985.60	3075.98	3169.09	3265.02	3363.85	3465.68	3570.58	3678.67	3790.02	3904.75	4022.95	41190.06	3432.51
PARCHE SCHRADER SBRB1	8018.50	8651.16	9333.73	10070.15	10864.68	11721.89	12646.74	13644.56	14721.11	15882.59	17135.71	18487.71	151178.53	12598.21
PARCHE VIPAL R-02	2848.13	2831.14	2814.26	2797.47	2780.79	2764.21	2747.72	2731.34	2715.05	2698.86	2682.76	2666.76	33078.48	2756.54
PARCHE VIPAL R-03	1576.31	1563.15	1550.11	1537.17	1524.35	1511.63	1499.01	1486.50	1474.10	1461.79	1449.60	1437.50	18071.22	1505.93
PARCHE VIPAL R-04	1724.48	1729.81	1735.15	1740.51	1745.89	1751.28	1756.69	1762.12	1767.56	1773.02	1778.50	1784.00	21049.04	1754.09
PARCHE VIPAL RBM-01	3295.09	3149.90	3011.12	2878.45	2751.63	2630.39	2514.50	2403.71	2297.80	2196.56	2099.78	2007.27	31236.20	2603.02
CAMARA 1200R20 SUPER BULL PREMIUN TR78A	33.73	33.20	32.68	32.16	31.66	31.16	30.67	30.19	29.72	29.25	28.79	28.34	371.53	30.96
CAMARA 300-17 SWALLOW TR4	425.27	525.19	648.60	801.00	989.21	1221.65	1508.70	1863.20	2300.99	2841.66	3509.37	4333.96	20968.79	1747.40
CAMARA 410-18 SWALLOW TR-4	252.40	277.57	305.25	335.70	369.17	405.99	446.48	491.00	539.97	593.82	653.04	718.16	5388.56	449.05
CAMARA 700-15 SUPER BULL PREMIUN TR177A	61.45	59.29	57.20	55.19	53.25	51.37	49.56	47.82	46.14	44.51	42.94	41.43	610.17	50.85
CAMARA KR-14 SUPER BULL PREMIUN TR-13	154.75	163.85	173.48	183.68	194.47	205.90	218.01	230.82	244.39	258.75	273.96	290.06	2592.12	216.01
PARCHE COLD PATCH L-24	729.24	791.12	858.26	931.09	1010.11	1095.83	1188.83	1289.71	1399.16	1517.90	1646.71	1786.46	14244.42	1187.03
PARCHE SCHRADER SBMC6	143.31	150.41	157.87	165.69	173.90	182.52	191.57	201.06	211.03	221.49	232.46	243.99	2275.30	189.61
PARCHE SCHRADER SBR4	959.51	939.32	919.56	900.22	881.28	862.74	844.59	826.83	809.43	792.41	775.74	759.42	10271.05	855.92
PARCHE SCHRADER SBRC12	962.53	1050.25	1145.96	1250.39	1364.35	1488.68	1624.35	1772.38	1933.90	2110.14	2302.44	2512.27	19517.63	1626.47
PARCHE SCHRADER SBRC14	757.83	856.37	967.72	1093.56	1235.75	1396.44	1578.02	1783.21	2015.08	2277.11	2573.20	2907.79	19442.08	1620.17
PARCHE SCHRADER SBRC40	107.80	102.76	97.95	93.37	89.01	84.85	80.88	77.10	73.50	70.06	66.79	63.67	1007.74	83.98
PARCHE VIPAL RAC10	803.02	849.94	899.61	952.17	1007.81	1066.70	1129.04	1195.01	1264.84	1338.75	1416.98	1499.77	13423.63	1118.64
PARCHE VIPAL VD3	444.03	437.08	430.25	423.52	416.89	410.37	403.95	397.63	391.41	385.29	379.27	373.33	4893.03	407.75
PARCHE VIPAL VD4	265.02	261.83	258.69	255.58	252.50	249.47	246.47	243.50	240.58	237.68	234.83	232.00	2978.14	248.18
PARCHE VIPAL VD5	226.03	226.83	227.63	228.43	229.24	230.05	230.86	231.67	232.49	233.31	234.13	234.96	2765.62	230.47
PARCHE VIPAL VF-8	1593.32	1752.47	1927.51	2120.04	2331.80	2564.71	2820.88	3102.65	3412.55	3753.41	4128.32	4540.68	34048.33	2837.36

### Anexo 14.4. Desarrollo de la estrategia de pronósticos para los artículos Clase C

PRODUCTO	DEMANDA REAL 2014												PATRÓN VARIABILIDAD	MÉTODO PRONÓSTICO
	ENERO	FEBRERO	MARZO	ABRIL	MAYO	JUNIO	JULIO	AGOSTO	SEPTIEMBRE	OCTUBRE	NOVIEMBRE	DECIEMBRE		
CAMARA 1100-20 SUPER BULL PREMIUN TR78A	36	44	21	43	34	47	43	50	24	14	39	20	Suavizado	SES
CAMARA 1100R20 SUPER BULL PREMIUN TR78A	28	33	21	72	14	8	40	2	5	17	22	10	Errática	SES
CAMARA 275-18 SWALLOW TR4	26	117	139	40	293	301	217	123	116	81	91	55	Suavizado	SES
CAMARA 300-21 SWALLOW TR-4	60	28	46	88	57	30	47	108	144	61	38	55	Suavizado	SES
CAMARA 400-8 SUPER BULL PREMIUN TR87C	202	310	160	84	461	474	71	0	0	10	284	271	Errática	SES
CAMARA 650-16 SUPER BULL PREMIUN TR177A	80	67	47	102	57	42	31	29	69	37	5	48	Suavizado	SES
CAMARA ER-13 SUPER BULL PREMIUN TR13	112	34	19	64	26	66	34	25	122	216	203	286	Errática	SES
PARCHE CP-401 CLASSIC	2815	3044	864	1505	3247	1158	769	758	1896	610	11218	1492	Errática	SES
PARCHE DC107-25 NINGBO	16	4	10	4	132	277	79	1415	28	15425	41	233	Errática	SES
PARCHE DC107-30 NINGBO	960	19	0	0	145	7880	492	4476	665	14926	542	457	Errática	SES
PARCHE DC107-40 NINGBO	78	14	2	5	86	4595	220	469	738	4649	216	286	Errática	SES
PARCHE DC110-52 NINGBO	101	5	2	20	62	3608	5036	1688	80	932	184	1727	Errática	SES
PARCHE SCHRADER SBRS5	114	118	84	107	132	161	792	536	145	253	164	76	Errática	SES
PARCHE SCHRADER SBRC20	120	133	317	386	154	432	235	200	307	235	116	128	Suavizado	SES
PARCHE VIPAL RAC12	162	124	282	362	612	169	288	556	108	229	346	232	Suavizado	SES
PARCHE VIPAL RT-3	820	1036	636	2485	1710	1091	1159	414	1604	1642	1015	1148	Suavizado	SES
PARCHE VIPAL VD6	145	79	46	49	41	91	94	337	79	29	44	80	Errática	SES
CAMARA 400-8ARL TR 87C	0	0	0	0	0	0	0	139	370	478	0	0	Grumoso	SAB
CAMARA 1000-20 SUPER BULL PREMIUN TR78A	3	29	13	8	1	1	2	0	42	38	32	23	Errática	SES
CAMARA 1000R20 SUPER BULL PREMIUN TR78A	5	2	2	19	14	22	35	15	2	6	8	9	Errática	SES
CAMARA 1100-20 CONCORD PLUS TR78A	0	0	0	0	0	0	0	0	0	0	20	9	Grumoso	SAB
CAMARA 1100-20ARL TR78A	0	0	0	0	0	0	0	0	124	54	2	0	Grumoso	SAB
CAMARA 1100R22 SUPER BULL PREMIUN TR78A	10	1	2	1	0	0	0	0	0	0	0	0	Grumoso	SAB
CAMARA 11L-16 SUPER BULL PREMIUN TR15	0	0	0	0	0	0	1	4	0	0	0	4	Grumoso	SAB
CAMARA 12.5/80-18 SUPER BULL PREMIUN TR218A	0	1	9	9	0	8	0	1	2	4	4	2	Errática	SES
CAMARA 1200-20 CONCORD PLUS	0	0	24	20	0	0	0	7	0	0	0	0	Grumoso	SAB
CAMARA 1200-20 SUPER BULL PREMIUN TR78A	33	54	18	0	11	3	2	0	0	5	0	12	Errática	SES
CAMARA 1200-20ARL TR78A	0	0	0	0	0	0	0	0	58	33	24	5	Grumoso	SAB
CAMARA 1200-24 SUPER BULL PREMIUN TR78A	0	18	0	0	2	0	10	0	5	0	0	0	Grumoso	SAB
CAMARA 14.9/13-24 SUPER BULL PREMIUN TR 218A	0	0	0	0	0	0	0	0	0	0	1	3	Grumoso	SAB
CAMARA 14.9/13-28 SUPER BULL PREMIUN	0	0	0	0	8	0	2	3	0	0	0	0	Grumoso	SAB
CAMARA 1400-24 TR179A SUPER BULL PREMIUM	0	6	0	0	4	0	0	0	0	1	0	0	Grumoso	SAB
CAMARA 18.4/15-38 SUPER BULL PREMIUN TR218A	0	0	0	0	0	1	1	0	1	0	0	1	Grumoso	SAB
CAMARA 19.5-24 SUPER BULL PREMIUN TR218A	0	2	4	5	0	0	0	0	0	0	6	1	Grumoso	SAB
CAMARA 20.5-25 SUPER BULL PREMIUN TRJ1175C	0	0	0	0	0	4	2	0	0	0	0	0	Grumoso	SAB
CAMARA 20.8 X 38 NEXEN TR218A	0	0	0	0	4	0	0	1	0	0	0	0	Grumoso	SAB
CAMARA 23.5-25 SUPER BULL PREMIUN TRJ1175C	0	1	0	0	0	0	2	1	4	3	1	3	Errática	SES
CAMARA 26.5-25 SUPER BULL PREMIUN TRJ1175C	0	0	0	2	0	0	0	0	2	0	0	0	Grumoso	SAB
CAMARA 275/300-17 GOSTONE TR 4	0	0	40	98	22	25	27	20	0	1	2	3	Errática	SES
CAMARA 275/300-17FORTUNE TR-4	0	0	0	0	0	68	0	0	0	0	0	0	Grumoso	SAB

**Nota: Se procedió de igual forma con los 114 ítems restantes**

Anexo 14.5. Análisis de Estacionalidad usando Test de raíz unitaria con ADF

PRODUCTO	CÓDIGO PROCESO	Estadístico Durbin-Watson	N° Retrasos	P-value	¿Estacional?
PARCHE SCHRADER SBR1	P1	2.05	1	0.0000	SÍ
PARCHE VIPAL R-01	P2	2.04	3	0.0385	SÍ
PARCHE VIPAL VD1	P3	1.98	9	0.0009	SÍ
CAMARA 300-18 S & M TR-4	C1	1.86	8	0.0000	SÍ
CAMARA 300-18 SWALLOW TR4	C2	2.04	3	0.0385	SÍ
CAMARA FR-13 SUPER BULL PREMIUN TR-13	C3	1.90	1	0.0000	SÍ
PARCHE DC110-30 NINGBO	P4	1.94	0	0.0068	SÍ
PARCHE SCHRADER SBMC2	P5	1.98	0	0.0002	SÍ
PARCHE SCHRADER SBRO	P6	1.91	4	0.0144	SÍ
PARCHE VIPAL R-00	P7	2.10	14	0.9096	NO
CAMARA 700-16 SUPER BULL PREMIUN TR177A	C4	1.95	2	0.1769	NO
CAMARA 750-16 SUPER BULL PREMIUN TR177A	C5	1.90	2	0.2797	NO
CAMARA 825-16 SUPER BULL PREMIUN TR177A	C6	1.86	14	0.5852	NO
CAMARA ER-12 SUPER BULL PREMIUN TR-13	C7	2.02	0	0.0207	SÍ
CAMARA FR-14 SUPER BULL PREMIUN TR-13	C8	2.19	5	0.0179	SÍ
CAMARA KR-15 SUPER BULL PREMIUN TR-13	C9	1.96	1	0.0000	SÍ
CAMARA KR-16 SUPER BULL PREMIUN TR-13	C10	2.09	5	0.0118	SÍ
PARCHE M-48 EVERWINNER	P8	1.88	1	0.0002	SÍ
PARCHE SCHRADER SBMC3	P9	1.92	0	0.0047	SÍ
PARCHE SCHRADER SBR2	P10	2.11	3	0.0000	SÍ
PARCHE SCHRADER SBRC10	P11	2.01	3	0.1241	NO
PARCHE VIPAL VD2	P12	1.87	5	0.3615	NO

Se debió agregar un retraso adicional (no pierde validez solo potencia)

Todos los retrasos significativos

Se debió reducir el óptimo de retrasos a 4 debido a la no significatividad a partir del 5°



Anexo 14.6. Resultados de los pronósticos

PRODUCTO	FAMILIA	CLASIFICACIÓN	MÉTODO DE PRONÓSTICO		DEMANDA ANUAL	MAD (LP)	DESV. PRONOSTICO
			CORTO PLAZO	MEDIANO PLAZO			
PARCHE SCHRADER SBR1	PARCHE	A	ESTACIONAL - MULT		261335.01	NO APLICA	7342.67
PARCHE VIPAL R-01	PARCHE	A	ESTACIONAL - MULT		231313.52	NO APLICA	5259.82
PARCHE VIPAL VD1	PARCHE	A	ESTACIONAL - MULT		42568.00	NO APLICA	937.18
CAMARA 300-18 S & M TR-4	CAMARA	A	ESTACIONAL - MULT		12108.50	NO APLICA	373.24
CAMARA 300-18 SWALLOW TR4	CAMARA	A	ESTACIONAL - MULT		12054.00	NO APLICA	426.43
CAMARA FR-13 SUPER BULL PREMIUN TR-13	CAMARA	A	ESTACIONAL - MULT		14611.50	NO APLICA	189.76
PARCHE DC110-30 NINGBO	PARCHE	A	ESTACIONAL - MULT		192462.49	NO APLICA	15316.22
PARCHE SCHRADER SBMC2	PARCHE	A	ESTACIONAL - MULT		22658.50	NO APLICA	706.51
PARCHE SCHRADER SBRO	PARCHE	A	ESTACIONAL - MULT		146799.00	NO APLICA	9172.87
PARCHE VIPAL R-00	PARCHE	A	SES	AJUSTE EXPONENCIAL	131536.13	2874	3592.5
CAMARA 700-16 SUPER BULL PREMIUN TR177A	CAMARA	A	SES	AJUSTE EXPONENCIAL	5760.41	109.5	136.875
CAMARA 750-16 SUPER BULL PREMIUN TR177A	CAMARA	A	SED	AJUSTE CUADRATICO	8696.44	72.07	90.0875
CAMARA 825-16 SUPER BULL PREMIUN TR177A	CAMARA	A	SES	AJUSTE EXPONENCIAL	1999.91	58.5	73.125
CAMARA ER-12 SUPER BULL PREMIUN TR-13	CAMARA	A	ESTACIONAL - MULT		9367.00	NO APLICA	149.91
CAMARA FR-14 SUPER BULL PREMIUN TR-13	CAMARA	A	ESTACIONAL - MULT		9448.50	NO APLICA	137.06
CAMARA KR-15 SUPER BULL PREMIUN TR-13	CAMARA	A	ESTACIONAL - MULT		3838.50	NO APLICA	81.50
CAMARA KR-16 SUPER BULL PREMIUN TR-13	CAMARA	A	ESTACIONAL - MULT		4690.00	NO APLICA	102.42
PARCHE M-48 EVERWINNER	PARCHE	A	ESTACIONAL - MULT		26706.50	NO APLICA	935.53
PARCHE SCHRADER SBMC3	PARCHE	A	ESTACIONAL - MULT		13157.50	NO APLICA	193.44
PARCHE SCHRADER SBR2	PARCHE	A	ESTACIONAL - MULT		45445.50	NO APLICA	930.30
PARCHE SCHRADER SBRC10	PARCHE	A	SES	CUADRATICO	22936.94	200.4	250.5
PARCHE VIPAL VD2	PARCHE	A	VER LP	EXPONENCIAL	14859.02	121.9	152.375
CAMARA 300-18 HUNG-A TR-4	CAMARA	B	SES	EXPONENCIAL	5473.04	128.1	160.125
CAMARA 300-18 KENDA TR-4	CAMARA	B	SED	EXPONENCIAL	1295.77	61.24	76.55
CAMARA 400-8 SWALLOW TR87C	CAMARA	B	SES	EXPONENCIAL	5297.73	78.31	97.8875
PARCHE DC110-40 NINGBO	PARCHE	B	SES	EXPONENCIAL	376647.75	3620	4525
PARCHE SCHRADER SBF1	PARCHE	B	SES	EXPONENCIAL	918547.21	2609	3261.25
PARCHE SCHRADER SBF2	PARCHE	B	SED	EXPONENCIAL	44082.91	599	748.75
PARCHE SCHRADER SBF3	PARCHE	B	SES	EXPONENCIAL	22898.09	1769	2211.25
PARCHE SCHRADER SBMC4	PARCHE	B	SES	EXPONENCIAL	19599.96	222	277.5
PARCHE SCHRADER SBMC5	PARCHE	B	SES	EXPONENCIAL	7594.34	132.4	165.5
PARCHE SCHRADER SBR3	PARCHE	B	SES	EXPONENCIAL	41190.06	789	986.25
PARCHE SCHRADER SBRB1	PARCHE	B	SED	EXPONENCIAL	151178.53	7062	8827.5
PARCHE VIPAL R-02	PARCHE	B	SES	EXPONENCIAL	33078.48	1031	1288.75
PARCHE VIPAL R-03	PARCHE	B	SES	EXPONENCIAL	18071.22	713	891.25

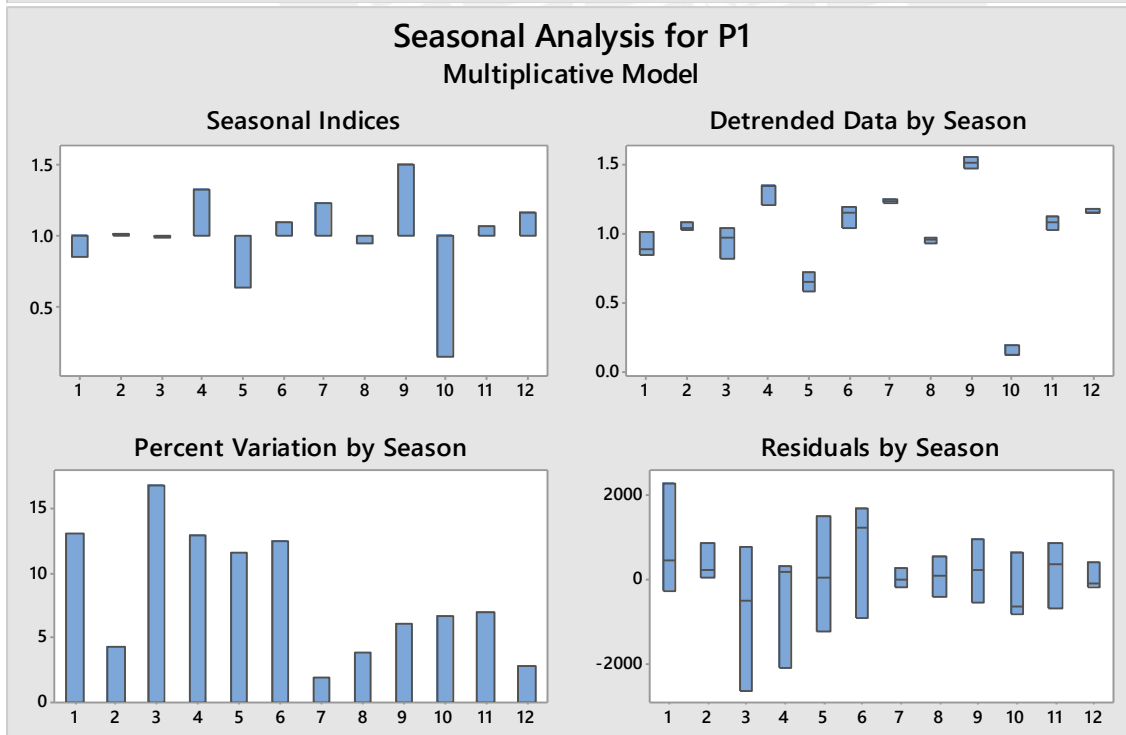
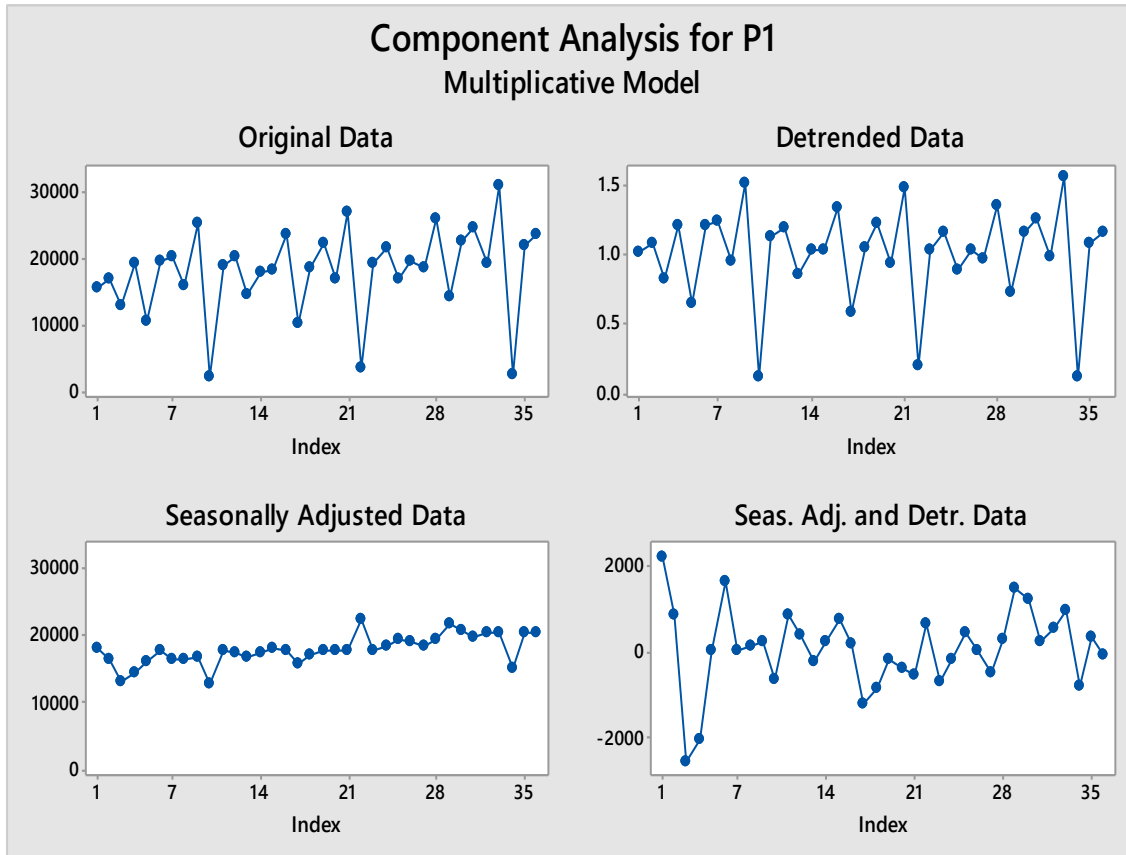
PARCHE VIPAL R-04	PARCHE	B	SES	EXPONENCIAL	21049.04	309	386.25
PARCHE VIPAL RBM-01	PARCHE	B	SES	EXPONENCIAL	31236.20	1358	1697.5
CAMARA 1200R20 SUPER BULL PREMIUN TR78A	CAMARA	B	SES	EXPONENCIAL	371.53	17.66	22.075
CAMARA 300-17 SWALLOW TR4	CAMARA	B	SES	EXPONENCIAL	20968.79	97.9	122.375
CAMARA 410-18 SWALLOW TR-4	CAMARA	B	SED	EXPONENCIAL	5388.56	32.29	40.3625
CAMARA 700-15 SUPER BULL PREMIUN TR177A	CAMARA	B	SED	EXPONENCIAL	610.17	20.53	25.6625
CAMARA KR-14 SUPER BULL PREMIUN TR-13	CAMARA	B	SES	EXPONENCIAL	2592.12	29.3	36.625
PARCHE COLD PATCH L-24	PARCHE	B	SES	EXPONENCIAL	14244.42	282	352.5
PARCHE SCHRADER SBMC6	PARCHE	B	SES	EXPONENCIAL	2275.30	47.03	58.7875
PARCHE SCHRADER SBR4	PARCHE	B	SES	EXPONENCIAL	10271.05	377	471.25
PARCHE SCHRADER SBRC12	PARCHE	B	SED	EXPONENCIAL	19517.63	173.3	216.625
PARCHE SCHRADER SBRC14	PARCHE	B	SES	EXPONENCIAL	19442.08	188.4	235.5
PARCHE SCHRADER SBRC40	PARCHE	B	SED	EXPONENCIAL	1007.74	21.37	26.7125
PARCHE VIPAL RAC10	PARCHE	B	SES	EXPONENCIAL	13423.63	250	312.5
PARCHE VIPAL VD3	PARCHE	B	SES	EXPONENCIAL	4893.03	109.8	137.25
PARCHE VIPAL VD4	PARCHE	B	SED	EXPONENCIAL	2978.14	85.17	106.4625
PARCHE VIPAL VD5	PARCHE	B	SED	EXPONENCIAL	2765.62	89.9	112.375
PARCHE VIPAL VF-8	PARCHE	B	SED	EXPONENCIAL	34048.33	531	663.75
CAMARA 1100-20 SUPER BULL PREMIUN TR78A	CAMARA	C	SES	NO APLICA	415	NO APLICA	11.463
CAMARA 1100R20 SUPER BULL PREMIUN TR78A	CAMARA	C	SES	NO APLICA	272	NO APLICA	18.472
CAMARA 275-18 SWALLOW TR4	CAMARA	C	SES	NO APLICA	1599	NO APLICA	87.659
CAMARA 300-21 SWALLOW TR-4	CAMARA	C	SES	NO APLICA	762	NO APLICA	32.666
CAMARA 400-8 SUPER BULL PREMIUN TR87C	CAMARA	C	SES	NO APLICA	2327	NO APLICA	161.954
CAMARA 650-16 SUPER BULL PREMIUN TR177A	CAMARA	C	SES	NO APLICA	614	NO APLICA	24.765
CAMARA ER-13 SUPER BULL PREMIUN TR13	CAMARA	C	SES	NO APLICA	1207	NO APLICA	85.689
PARCHE CP-401 CLASSIC	PARCHE	C	SES	NO APLICA	29376	NO APLICA	2789.499
PARCHE DC107-25 NINGBO	PARCHE	C	SES	NO APLICA	17664	NO APLICA	4223.831
PARCHE DC107-30 NINGBO	PARCHE	C	SES	NO APLICA	30562	NO APLICA	4370.431
PARCHE DC107-40 NINGBO	PARCHE	C	SES	NO APLICA	11358	NO APLICA	1656.604
PARCHE DC110-52 NINGBO	PARCHE	C	SES	NO APLICA	13445	NO APLICA	1582.987
PARCHE SCHRADER SBR5	PARCHE	C	SES	NO APLICA	2682	NO APLICA	208.488
PARCHE SCHRADER SBRC20	PARCHE	C	SES	NO APLICA	2763	NO APLICA	104.192
PARCHE VIPAL RAC12	PARCHE	C	SES	NO APLICA	3470	NO APLICA	153.191
PARCHE VIPAL RT-3	PARCHE	C	SES	NO APLICA	14760	NO APLICA	533.603
PARCHE VIPAL VD6	PARCHE	C	SES	NO APLICA	1114	NO APLICA	79.662
CAMARA 400-8ARL TR 87C	CAMARA	C	SES	NO APLICA	987	NO APLICA	159.040
CAMARA 1000-20 SUPER BULL PREMIUN TR78A	CAMARA	C	SES	NO APLICA	192	NO APLICA	15.215
CAMARA 1000R20 SUPER BULL PREMIUN TR78A	CAMARA	C	SES	NO APLICA	139	NO APLICA	9.570
CAMARA 1100-20 CONCORD PLUS TR78A	CAMARA	C	SES	NO APLICA	29	NO APLICA	5.852
CAMARA 1100-20ARL TR78A	CAMARA	C	SES	NO APLICA	180	NO APLICA	36.051

CAMARA 1100R22 SUPER BULL PREMIUN TR78A	CAMARA	C	SES	NO APLICA	14	NO APLICA	2.734
CAMARA 11L-16 SUPER BULL PREMIUN TR15	CAMARA	C	SES	NO APLICA	9	NO APLICA	1.479
CAMARA 12.5/80-18 SUPER BULL PREMIUN TR21	CAMARA	C	SES	NO APLICA	40	NO APLICA	3.350
CAMARA 1200-20 CONCORD PLUS	CAMARA	C	SES	NO APLICA	51	NO APLICA	8.207
CAMARA 1200-20 SUPER BULL PREMIUN TR78A	CAMARA	C	SES	NO APLICA	138	NO APLICA	15.930
CAMARA 1200-20ARL TR78A	CAMARA	C	SES	NO APLICA	120	NO APLICA	17.921
CAMARA 1200-24 SUPER BULL PREMIUN TR78A	CAMARA	C	SES	NO APLICA	35	NO APLICA	5.408
CAMARA 14.9/13-24 SUPER BULL PREMIUN TR 21	CAMARA	C	SES	NO APLICA	4	NO APLICA	0.850
CAMARA 14.9/13-28 SUPER BULL PREMIUN	CAMARA	C	SES	NO APLICA	13	NO APLICA	2.290
CAMARA 1400-24 TR179A SUPER BULL PREMIUM	CAMARA	C	SES	NO APLICA	11	NO APLICA	1.891
CAMARA 18.4/15-38 SUPER BULL PREMIUN TR21	CAMARA	C	SES	NO APLICA	4	NO APLICA	0.471
CAMARA 19.5-24 SUPER BULL PREMIUM TR218A	CAMARA	C	SES	NO APLICA	18	NO APLICA	2.141
CAMARA 20.5-25 SUPER BULL PREMIUN TRJ1175	CAMARA	C	SES	NO APLICA	6	NO APLICA	1.190
CAMARA 20.8 X 38 NEXEN TR218A	CAMARA	C	SES	NO APLICA	5	NO APLICA	1.115
CAMARA 23.5-25 SUPER BULL PREMIUN TRJ1175	CAMARA	C	SES	NO APLICA	15	NO APLICA	1.362
CAMARA 26.5-25 SUPER BULL PREMIUN TRJ1175	CAMARA	C	SES	NO APLICA	4	NO APLICA	0.745
CAMARA 275/300-17 GOSTONE TR 4	CAMARA	C	SES	NO APLICA	238	NO APLICA	26.981
CAMARA 275/300-17FORTUNE TR-4	CAMARA	C	SES	NO APLICA	68	NO APLICA	18.794
CAMARA 275-18 DURO TR-4	CAMARA	C	SES	NO APLICA	74	NO APLICA	13.939
CAMARA 275-18 KENDA TR-4	CAMARA	C	SES	NO APLICA	21	NO APLICA	3.443
CAMARA 275-18 S & M TR-4	CAMARA	C	SES	NO APLICA	177	NO APLICA	9.731
CAMARA 300-17 HUNG-A TR-4	CAMARA	C	SES	NO APLICA	441	NO APLICA	77.508
CAMARA 300-17 KENDA TR-4	CAMARA	C	SES	NO APLICA	338	NO APLICA	32.336
CAMARA 300-17 S & M TR-4	CAMARA	C	SES	NO APLICA	410	NO APLICA	62.083
CAMARA 300-18ARL TR-4	CAMARA	C	SES	NO APLICA	1145	NO APLICA	152.358
CAMARA 300-21 KENDA TR-4	CAMARA	C	SES	NO APLICA	36	NO APLICA	3.582
CAMARA 350-8 S & M TR87C	CAMARA	C	SES	NO APLICA	145	NO APLICA	17.979
CAMARA 350-8 SWALLOW TR87C	CAMARA	C	SES	NO APLICA	215	NO APLICA	25.979
CAMARA 400-8 GOSTONE TR 87C	CAMARA	C	SES	NO APLICA	1635	NO APLICA	96.808
CAMARA 400-8 KENDA TR87C	CAMARA	C	SES	NO APLICA	863	NO APLICA	30.614
CAMARA 400-8 S & M TR87C	CAMARA	C	SES	NO APLICA	1122	NO APLICA	116.609
CAMARA 400-8 SUPER BULL PREMIUM TR-13	CAMARA	C	SES	NO APLICA	166	NO APLICA	11.760
CAMARA 400-8 TRULPER TR 87C	CAMARA	C	SES	NO APLICA	286	NO APLICA	45.094
CAMARA 400-8M MARELY	CAMARA	C	SES	NO APLICA	15	NO APLICA	4.146
CAMARA 410-18 GOSTONE	CAMARA	C	SES	NO APLICA	39	NO APLICA	3.443
CAMARA 410-18 KENDA TR-4	CAMARA	C	SES	NO APLICA	84	NO APLICA	8.593
CAMARA 410-18 S & M TR-4	CAMARA	C	SES	NO APLICA	170	NO APLICA	22.952
CAMARA 700-15 CAMEL	CAMARA	C	SES	NO APLICA	108	NO APLICA	20.125
CAMARA 700-15CP CONCORD PLUS TR 177A	CAMARA	C	SES	NO APLICA	57	NO APLICA	10.717
CAMARA 700-16 CONCORD PLUS	CAMARA	C	SES	NO APLICA	146	NO APLICA	20.558

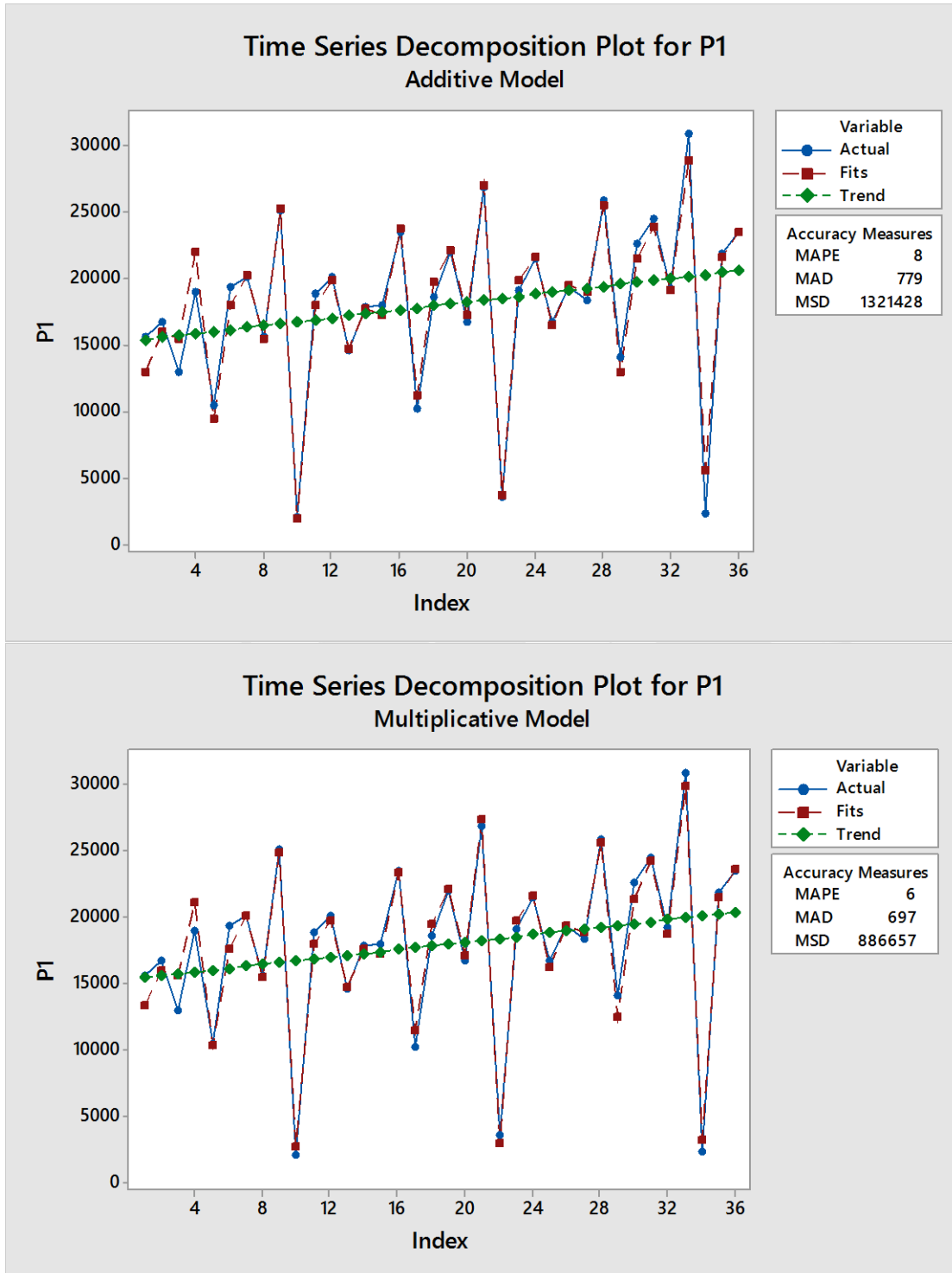
CAMARA 700X16 NEXEN	CAMARA	C	SES	NO APLICA	226	NO APLICA	10.383
CAMARA 750-16 CAMELL TR177A	CAMARA	C	SES	NO APLICA	220	NO APLICA	51.560
CAMARA 750-16D DIAMOND	CAMARA	C	SES	NO APLICA	15	NO APLICA	3.585
CAMARA 750-16-R SUPER BULL PREMIUN REFOR	CAMARA	C	SES	NO APLICA	166	NO APLICA	30.770
CAMARA 750X16 NEXEN	CAMARA	C	SES	NO APLICA	114	NO APLICA	5.993
CAMARA 825-20 SUPER BULL PREMIUN TR177A	CAMARA	C	SES	NO APLICA	75	NO APLICA	6.366
CAMARA 825-20C CONCORD PLUS TR177A	CAMARA	C	SES	NO APLICA	5	NO APLICA	1.115
CAMARA 900-20 SUPER BULL PREMIUN TR175A	CAMARA	C	SES	NO APLICA	113	NO APLICA	3.818
CAMARA DE BICICLETA 20X1.90/2.125 CST ARO 2	CAMARA	C	SES	NO APLICA	53	NO APLICA	5.423
CAMARA DE BICICLETA 24X1.90/2.125 CST ARO 2	CAMARA	C	SES	NO APLICA	69	NO APLICA	5.182
CAMARA DE BICICLETA 26X1.90/2.125 CST ARO 2	CAMARA	C	SES	NO APLICA	204	NO APLICA	11.762
CAMARA ER-12 CAMELL TR13	CAMARA	C	SES	NO APLICA	26	NO APLICA	2.995
CAMARA ER-12 NEXEN TR-13	CAMARA	C	SES	NO APLICA	202	NO APLICA	24.423
CAMARA ER-12C CONCORD PLUS TR13	CAMARA	C	SES	NO APLICA	724	NO APLICA	178.972
CAMARA ER-15 DIAMOND TR-13	CAMARA	C	SES	NO APLICA	133	NO APLICA	9.853
CAMARA FR12 ARL	CAMARA	C	SES	NO APLICA	374	NO APLICA	63.777
CAMARA FR13 ARL	CAMARA	C	SES	NO APLICA	282	NO APLICA	45.305
CAMARA FR-13 NEXEN TR13	CAMARA	C	SES	NO APLICA	85	NO APLICA	10.275
CAMARA FR-14CP CONCORD PLUS TR 13	CAMARA	C	SES	NO APLICA	110	NO APLICA	24.409
CAMARA FR-15 DIAMOND	CAMARA	C	SES	NO APLICA	295	NO APLICA	32.656
CAMARA GR-13 CONCORD PLUS TR-13	CAMARA	C	SES	NO APLICA	60	NO APLICA	16.583
CAMARA GR-14 SUPER BULL PREMIUN TR-13	CAMARA	C	SES	NO APLICA	641	NO APLICA	17.260
CAMARA KR-15 NEXEN TR-13	CAMARA	C	SES	NO APLICA	5	NO APLICA	0.759
CAMARA KR-15 SUPER BULL TR177A	CAMARA	C	SES	NO APLICA	28	NO APLICA	3.659
CAMARA KR-16C CAMELL TR13	CAMARA	C	SES	NO APLICA	6	NO APLICA	1.118
CAMARA KR-16CP CONCORD PLUS TR177A	CAMARA	C	SES	NO APLICA	43	NO APLICA	6.525
PARCHE COLD PATCH S-48	PARCHE	C	SES	NO APLICA	5560	NO APLICA	399.402
PARCHE COLD PATCH YP3-219	PARCHE	C	SES	NO APLICA	938	NO APLICA	142.091
PARCHE COLD PATCH YP3-221	PARCHE	C	SES	NO APLICA	2831	NO APLICA	411.415
PARCHE CP-201 CLASSIC	PARCHE	C	SES	NO APLICA	1196	NO APLICA	70.059
PARCHE CP-202 CLASSIC	PARCHE	C	SES	NO APLICA	6805	NO APLICA	469.958
PARCHE CP-203 CLASSIC	PARCHE	C	SES	NO APLICA	4275	NO APLICA	246.978
PARCHE CP-402 CLASSIC	PARCHE	C	SES	NO APLICA	7749	NO APLICA	659.751
PARCHE CP-403 CLASSIC	PARCHE	C	SES	NO APLICA	4228	NO APLICA	208.014
PARCHE CP-404 CLASSIC	PARCHE	C	SES	NO APLICA	1833	NO APLICA	201.170
PARCHE CP-501 DE LONA NINGBO	PARCHE	C	SES	NO APLICA	1702	NO APLICA	69.195
PARCHE CP-502 DE LONA NINGBO	PARCHE	C	SES	NO APLICA	539	NO APLICA	24.975
PARCHE CP-503 DE LONA NINGBO	PARCHE	C	SES	NO APLICA	300	NO APLICA	13.577
PARCHE DC107-52 NINGBO	PARCHE	C	SES	NO APLICA	4391	NO APLICA	723.014
PARCHE DC107-65 NINGBO	PARCHE	C	SES	NO APLICA	3414	NO APLICA	52.794

PARCHE DC107-75 NINGBO	PARCHE	C	SES	NO APLICA	4025	NO APLICA	177.227
PARCHE DC108-34X24 NINGBO	PARCHE	C	SES	NO APLICA	440	NO APLICA	37.189
PARCHE DC108-72X40 NINGBO	PARCHE	C	SES	NO APLICA	254	NO APLICA	12.013
PARCHE DC110-75 NINGBO	PARCHE	C	SES	NO APLICA	1839	NO APLICA	198.608
PARCHE EWQ-09 CLASSIC	PARCHE	C	SES	NO APLICA	6174	NO APLICA	588.222
PARCHE P-2 PANESA	PARCHE	C	SES	NO APLICA	4242	NO APLICA	441.045
PARCHE PARA PISCINA #62068 EN STICKERS	PARCHE	C	SES	NO APLICA	28	NO APLICA	4.478
PARCHE PARA PISCINA 59632 NP	PARCHE	C	SES	NO APLICA	121	NO APLICA	18.209
PARCHE REM-00 RUZI	PARCHE	C	SES	NO APLICA	170	NO APLICA	23.688
PARCHE REM-01 RUZI	PARCHE	C	SES	NO APLICA	1976	NO APLICA	156.768
PARCHE REM-02 RUZI	PARCHE	C	SES	NO APLICA	34	NO APLICA	9.397
PARCHE REM-03 RUZI	PARCHE	C	SES	NO APLICA	390	NO APLICA	45.401
PARCHE REM-04 RUZI	PARCHE	C	SES	NO APLICA	848	NO APLICA	140.597
PARCHE SCHRADER SBMC7	PARCHE	C	SES	NO APLICA	436	NO APLICA	14.326
PARCHE SCHRADER SBMC8	PARCHE	C	SES	NO APLICA	154	NO APLICA	9.805
PARCHE SCHRADER SBMC9	PARCHE	C	SES	NO APLICA	26	NO APLICA	2.703
PARCHE SCHRADER SBR10	PARCHE	C	SES	NO APLICA	628	NO APLICA	78.615
PARCHE SCHRADER SBR6	PARCHE	C	SES	NO APLICA	825	NO APLICA	45.255
PARCHE SCHRADER SBR7	PARCHE	C	SES	NO APLICA	1726	NO APLICA	298.252
PARCHE SCHRADER SBR8	PARCHE	C	SES	NO APLICA	2037	NO APLICA	369.914
PARCHE SCHRADER SBRB2	PARCHE	C	SES	NO APLICA	5364	NO APLICA	497.863
PARCHE SCHRADER SBRC22	PARCHE	C	SES	NO APLICA	800	NO APLICA	40.177
PARCHE SCHRADER SBRC24	PARCHE	C	SES	NO APLICA	135	NO APLICA	8.613
PARCHE SCHRADER SBRC42	PARCHE	C	SES	NO APLICA	894	NO APLICA	17.056
PARCHE SCHRADER SBRC44	PARCHE	C	SES	NO APLICA	275	NO APLICA	30.707
PARCHE TFMD-02 TIREFIX	PARCHE	C	SES	NO APLICA	1901	NO APLICA	267.539
PARCHE TFMD-03 TIREFIX	PARCHE	C	SES	NO APLICA	1110	NO APLICA	157.173
PARCHE TFMD-04 TIREFIX	PARCHE	C	SES	NO APLICA	186	NO APLICA	49.335
PARCHE TFMD-05 TIREFIX	PARCHE	C	SES	NO APLICA	154	NO APLICA	40.212
PARCHE TFRC-110 TIREFIX	PARCHE	C	SES	NO APLICA	1231	NO APLICA	260.708
PARCHE TFRC-112 TIREFIX	PARCHE	C	SES	NO APLICA	1034	NO APLICA	148.577
PARCHE TFRC-114 TIREFIX	PARCHE	C	SES	NO APLICA	1123	NO APLICA	146.896
PARCHE TFRC-120 TIREFIX	PARCHE	C	SES	NO APLICA	142	NO APLICA	38.057
PARCHE VD10 VIPAL	PARCHE	C	SES	NO APLICA	86	NO APLICA	14.433
PARCHE VF-3 VIPAL	PARCHE	C	SES	NO APLICA	5256	NO APLICA	940.079
PARCHE VIPAL R-05	PARCHE	C	SES	NO APLICA	3291	NO APLICA	148.353
PARCHE VIPAL R-06	PARCHE	C	SES	NO APLICA	764	NO APLICA	67.241
PARCHE VIPAL RAC08	PARCHE	C	SES	NO APLICA	372	NO APLICA	46.594
PARCHE VIPAL RAC14	PARCHE	C	SES	NO APLICA	2128	NO APLICA	72.226
PARCHE VIPAL RAC20	PARCHE	C	SES	NO APLICA	490	NO APLICA	26.466
PARCHE VIPAL RAC22	PARCHE	C	SES	NO APLICA	334	NO APLICA	17.549
PARCHE VIPAL RAC24	PARCHE	C	SES	NO APLICA	19	NO APLICA	3.226
PARCHE VIPAL RAC25	PARCHE	C	SES	NO APLICA	85	NO APLICA	10.516
PARCHE VIPAL RAC35	PARCHE	C	SES	NO APLICA	432	NO APLICA	21.882
PARCHE VIPAL RAC40	PARCHE	C	SES	NO APLICA	280	NO APLICA	12.828
PARCHE VIPAL RAC42	PARCHE	C	SES	NO APLICA	49	NO APLICA	3.796
PARCHE VIPAL RAC44	PARCHE	C	SES	NO APLICA	42	NO APLICA	9.862
PARCHE VIPAL RBM-02	PARCHE	C	SES	NO APLICA	1609	NO APLICA	105.568
PARCHE VIPAL VD7	PARCHE	C	SES	NO APLICA	284	NO APLICA	27.207
PARCHE VIPAL VD8	PARCHE	C	SES	NO APLICA	132	NO APLICA	16.279
PARCHE VIPAL VD9	PARCHE	C	SES	NO APLICA	5	NO APLICA	0.759
PARCHE VIPAL VF-6	PARCHE	C	SES	NO APLICA	5336	NO APLICA	654.549

Anexo 15. Análisis gráfico de estacionalidad



Anexo 16. Ajuste óptimo de estacionalidad empleando el software MINITAB





**Anexo 17. Pronósticos Estacionales**



### Anexo 17.1. Datos para realizar los pronósticos estacionales

PRODUCTO	CÓDIGO PROCESO
PARCHE SCHRADER SBR1	P1
PARCHE VIPAL R-01	P2
PARCHE VIPAL VD1	P3
CAMARA 300-18 S & MTR-4	C1
CAMARA 300-18 SWALLOW TR4	C2
CAMARA FR-13 SUPER BULL PREMIUN TR-13	C3
PARCHE DC110-30 NINGBO	P4
PARCHE SCHRADER SBMC2	P5
PARCHE SCHRADER SBRO	P6
CAMARA ER-12 SUPER BULL PREMIUN TR-13	C7
CAMARA FR-14 SUPER BULL PREMIUN TR-13	C8
CAMARA KR-15 SUPER BULL PREMIUN TR-13	C9
CAMARA KR-16 SUPER BULL PREMIUN TR-13	C10
PARCHE M-48 EVERWINNER	P8
PARCHE SCHRADER SBMC3	P9
PARCHE SCHRADER SBR2	P10

Período	P1	P2	P3	C1	C2	C3	P4	P5	P6	C7	C8	C9	C10	P8	P9	P10
ene-12	15590	20434	3893	1304	905	1115	327	1265	12936	855	811	237	271	2591	636	2471
feb-12	16771	18331	2483	1012	649	900	504	1480	8677	710	615	272	236	772	653	2316
mar-12	12966	9495	1832	935	561	767	306	1108	14998	598	572	210	243	932	783	2584
abr-12	19043	9792	1730	967	1402	998	965	1521	10616	687	668	216	224	1250	1165	2243
may-12	10410	19131	2867	1242	362	838	8169	1116	16456	559	515	251	233	1193	793	3129
jun-12	19336	9115	3023	671	507	856	27607	408	18964	628	541	213	222	1736	892	4356
jul-12	20141	13310	2949	245	939	727	19458	1191	23777	512	516	217	299	2069	955	2785
ago-12	15652	15808	4675	335	401	996	4094	2443	2581	558	540	306	422	1615	901	2027
sep-12	25124	15435	2571	765	1098	794	18158	1625	2387	414	447	330	427	1734	594	2485
oct-12	2021	19242	3362	840	886	1169	39008	2187	1870	391	743	308	395	1092	767	2195
nov-12	18807	9813	2869	752	692	990	12633	1005	1878	673	495	150	308	1458	830	3896
dic-12	20107	16779	3615	975	1084	728	20594	1938	2190	697	575	158	249	3006	821	3299
ene-13	14541	23934	3295	1392	919	1192	407	1332	13734	751	867	264	300	3050	680	2643
feb-13	17874	18507	2656	1161	694	962	496	1570	9284	748	657	280	252	869	698	2478
mar-13	18013	10045	1532	1017	600	820	314	1185	16047	639	611	214	260	954	891	2764
abr-13	23510	10691	1851	978	1607	1067	1018	1627	11359	735	714	231	228	1380	1139	2400
may-13	10208	20256	3067	1114	302	896	8740	1194	17607	598	550	268	249	1169	848	3348
jun-13	18619	11822	3127	600	542	915	29539	423	20291	607	578	227	237	1964	981	4660
jul-13	22009	14157	2727	262	1004	777	19080	1274	23301	547	552	232	288	2213	1048	2979
ago-13	16747	16519	5002	358	322	1065	4380	2614	2309	597	577	327	462	1728	974	2168
sep-13	26882	16515	2750	818	1174	849	19428	1738	2447	442	478	363	456	1962	635	2658
oct-13	3553	20588	3383	856	947	1250	40540	2333	1893	418	795	350	422	1261	799	2348
nov-13	19053	10499	3069	727	683	1059	12447	1091	2009	720	529	139	330	1399	898	4168
dic-13	21465	16811	3440	1043	1159	778	21965	2073	2405	745	615	168	265	3176	878	3529
ene-14	16722	26374	3559	1554	922	1370	364	1531	15793	863	996	303	344	3679	782	3039
feb-14	19405	22432	2939	1220	774	1106	570	1805	10676	860	755	321	289	826	791	2849
mar-14	18414	11436	1646	1158	689	942	360	1247	17304	619	702	245	298	1097	909	3178
abr-14	25892	12294	2128	1124	1848	1226	940	1870	13062	960	821	265	262	1586	1321	2760
may-14	14039	23294	3296	1280	321	1030	10051	1373	17948	722	632	308	286	1344	975	3850
jun-14	22561	12445	3596	689	623	1052	32819	451	23334	697	664	237	260	2258	1128	5358
jul-14	24536	16280	3136	186	1154	893	21482	1464	26796	628	634	266	342	2544	1320	3425
ago-14	19259	18996	5326	400	370	1224	4944	3005	2436	686	663	376	542	1987	1119	2493
sep-14	30914	16772	3334	940	1350	976	22342	1998	2813	473	549	440	524	2256	730	3056
oct-14	2360	22526	3890	984	1088	1437	46621	2567	2176	480	914	414	473	1220	918	2700
nov-14	21910	12073	3529	801	727	1217	14314	1174	2080	828	608	159	390	1608	1021	4793
dic-14	23534	18182	3956	1084	1332	894	24109	2383	2558	856	707	181	293	3882	1021	4058

### Anexo 17.2. Pronóstico estacional del PARCHE SCHRADER SBRI

Data	Year 1	Year 2	Year 3
Period 1	15590	14541	16722
Period 2	16771	17874	19405
Period 3	12966	18013	18414
Period 4	19043	23510	25892
Period 5	10410	10208	14039
Period 6	19336	18619	22561
Period 7	20141	22009	24536
Period 8	15652	16747	19259
Period 9	25124	26882	30914
Period 10	2021	3553	2360
Period 11	18807	19053	21910
Period 12	20107	21465	23534
Annual Total	195968	212474	239546
Annual Average	16330.67	17706.17	19962.17

Seasonal ratios	Year 1	Year 2	Year 3	Index	Forecast
Period 1	0.955	0.821	0.838	0.871	18972.7
Period 2	1.027	1.009	0.972	1.003	21839.85
Period 3	0.794	1.017	0.922	0.911	19845.06
Period 4	1.166	1.328	1.297	1.264	27519.51
Period 5	0.637	0.577	0.703	0.639	13917.93
Period 6	1.184	1.052	1.13	1.122	24433.17
Period 7	1.233	1.243	1.229	1.235	26899.08
Period 8	0.958	0.946	0.965	0.956	20827.28
Period 9	1.538	1.518	1.549	1.535	33431.38
Period 10	0.124	0.201	0.118	0.148	3213.281
Period 11	1.152	1.076	1.098	1.108	24139.21
Period 12	1.231	1.212	1.179	1.207	26296.56

Annual trend            21789  
 Demand forecast      261335 Computed

### Anexo 17.3. Pronóstico estacional del PARCHE VIPAL R-01

Data	Year 1	Year 2	Year 3
Period 1	20434	23934	26374
Period 2	18331	18507	22432
Period 3	9495	10045	11436
Period 4	9792	10691	12294
Period 5	19131	20256	23294
Period 6	9115	11822	12445
Period 7	13310	14157	16280
Period 8	15808	16519	18996
Period 9	15435	16515	16772
Period 10	19242	20588	22526
Period 11	9813	10499	12073
Period 12	16779	16811	18182
Annual Total	176685	190344	213104
Annual Average	14723.75	15862	17758.67

Seasonal ratios	Year 1	Year 2	Year 3	Index	Forecast
Period 1	1.388	1.509	1.485	1.461	28155.03
Period 2	1.245	1.167	1.263	1.225	23612.63
Period 3	0.645	0.633	0.644	0.641	12350.33
Period 4	0.665	0.674	0.692	0.677	13052.06
Period 5	1.299	1.277	1.312	1.296	24982.12
Period 6	0.619	0.745	0.701	0.688	13269.4
Period 7	0.904	0.893	0.917	0.904	17433.51
Period 8	1.074	1.041	1.07	1.062	20463.11
Period 9	1.048	1.041	0.944	1.011	19494.04
Period 10	1.307	1.298	1.268	1.291	24887.18
Period 11	0.666	0.662	0.68	0.669	12903.49
Period 12	1.14	1.06	1.024	1.074	20710.62

Annual trend            18209.5  
 Demand forecast    231313.5 Computed

### Anexo 17.4. Pronóstico estacional del PARCHE VIPAL VD1

Data	Year 1	Year 2	Year 3
Period 1	3893	3295	3559
Period 2	2483	2656	2939
Period 3	1832	1532	1646
Period 4	1730	1851	2128
Period 5	2867	3067	3296
Period 6	3023	3127	3596
Period 7	2949	2727	3136
Period 8	4675	5002	5326
Period 9	2571	2750	3334
Period 10	3362	3383	3890
Period 11	2869	3069	3529
Period 12	3615	3440	3956
Annual Total	35869	35899	40335
Annual Average	2989.083	2991.583	3361.25

Seasonal ratios	Year 1	Year 2	Year 3	Index	Forecast
Period 1	1.302	1.101	1.059	1.154	4094.405
Period 2	0.831	0.888	0.874	0.864	3065.949
Period 3	0.613	0.512	0.49	0.538	1909.292
Period 4	0.579	0.619	0.633	0.61	2164.59
Period 5	0.959	1.025	0.981	0.988	3505.894
Period 6	1.011	1.045	1.07	1.042	3696.857
Period 7	0.987	0.912	0.933	0.944	3347.658
Period 8	1.564	1.672	1.585	1.607	5700.066
Period 9	0.86	0.919	0.992	0.924	3276.871
Period 10	1.125	1.131	1.157	1.138	4035.573
Period 11	0.96	1.026	1.05	1.012	3589.442
Period 12	1.209	1.15	1.177	1.179	4181.403

Annual trend            2233  
 Demand forecast        42568 Computed

**Anexo 17.5. Pronóstico estacional de la CAMARA 300-18 S&M TR-4**

Data	Year 1	Year 2	Year 3
Period 1	1304	1392	1554
Period 2	1012	1161	1220
Period 3	935	1017	1158
Period 4	967	978	1124
Period 5	1242	1114	1280
Period 6	671	600	689
Period 7	245	262	186
Period 8	335	358	400
Period 9	765	818	940
Period 10	840	856	984
Period 11	752	727	801
Period 12	975	1043	1084
Annual Total	10043	10326	11420
Annual Average	836.9167	860.5	951.6667

Seasonal ratios	Year 1	Year 2	Year 3	Index	Forecast
Period 1	1.558	1.618	1.633	1.603	1617.389
Period 2	1.209	1.349	1.282	1.28	1291.7
Period 3	1.117	1.182	1.217	1.172	1182.556
Period 4	1.155	1.137	1.181	1.158	1168.156
Period 5	1.484	1.295	1.345	1.375	1386.969
Period 6	0.802	0.697	0.724	0.741	747.705
Period 7	0.293	0.304	0.195	0.264	266.61
Period 8	0.4	0.416	0.42	0.412	415.938
Period 9	0.914	0.951	0.988	0.951	959.404
Period 10	1.004	0.995	1.034	1.011	1019.949
Period 11	0.899	0.845	0.842	0.862	869.483
Period 12	1.165	1.212	1.139	1.172	1182.641

Annual trend            688.5  
 Demand forecast    12108.5 Computed

**Anexo 17.6. Pronóstico estacional de la CAMARA 300-18 SWALLOW TR-4**

Data	Year 1	Year 2	Year 3
Period 1	905	919	922
Period 2	649	694	774
Period 3	561	600	689
Period 4	1402	1607	1848
Period 5	362	302	321
Period 6	507	542	623
Period 7	939	1004	1154
Period 8	401	322	370
Period 9	1098	1174	1350
Period 10	886	947	1088
Period 11	692	683	727
Period 12	1084	1159	1332
Annual Total	9486	9953	11198
Annual Average	790.5	829.4167	933.1667

Seasonal ratios	Year 1	Year 2	Year 3	Index	Forecast
Period 1	1.145	1.108	0.988	1.08	1085.157
Period 2	0.821	0.837	0.829	0.829	832.786
Period 3	0.71	0.723	0.738	0.724	727.065
Period 4	1.774	1.938	1.98	1.897	1905.677
Period 5	0.458	0.364	0.344	0.389	390.429
Period 6	0.641	0.653	0.668	0.654	657.096
Period 7	1.188	1.21	1.237	1.212	1217.117
Period 8	0.507	0.388	0.396	0.431	432.604
Period 9	1.389	1.415	1.447	1.417	1423.421
Period 10	1.121	1.142	1.166	1.143	1147.975
Period 11	0.875	0.823	0.779	0.826	829.695
Period 12	1.371	1.397	1.427	1.399	1404.977

Annual trend           856  
Demand forecast   12054 Computed

**Anexo 17.7. Pronóstico estacional de la CAMARA FR-13 SUPER BULL PREMIUM TR-13**

Data	Year 1	Year 2	Year 3
Period 1	1115	1192	1370
Period 2	900	962	1106
Period 3	767	820	942
Period 4	998	1067	1226
Period 5	838	896	1030
Period 6	856	915	1052
Period 7	727	777	893
Period 8	996	1065	1224
Period 9	794	849	976
Period 10	1169	1250	1437
Period 11	990	1059	1217
Period 12	728	778	894
Annual Total	10878	11630	13367
Annual Average	906.5	969.1667	1113.917

Seasonal ratios	Year 1	Year 2	Year 3	Index	Forecast
Period 1	1.23	1.23	1.23	1.23	1497.607
Period 2	0.993	0.993	0.993	0.993	1208.829
Period 3	0.846	0.846	0.846	0.846	1030.055
Period 4	1.101	1.101	1.101	1.101	1340.404
Period 5	0.924	0.925	0.925	0.925	1125.737
Period 6	0.944	0.944	0.944	0.944	1149.769
Period 7	0.802	0.802	0.802	0.802	976.284
Period 8	1.099	1.099	1.099	1.099	1337.942
Period 9	0.876	0.876	0.876	0.876	1066.678
Period 10	1.29	1.29	1.29	1.29	1570.487
Period 11	1.092	1.093	1.093	1.092	1330.193
Period 12	0.803	0.803	0.803	0.803	977.515

Annual trend            1244.5  
 Demand forecast    14611.5 Computed

### Anexo 17.8. Pronóstico estacional del PARCHE DC 110-30 NIGNBO

Data	Year 1	Year 2	Year 3
Period 1	327	407	364
Period 2	504	496	570
Period 3	306	314	360
Period 4	965	1018	940
Period 5	8169	8740	10051
Period 6	27607	29539	32819
Period 7	19458	19080	21482
Period 8	4094	4380	4944
Period 9	18158	19428	22342
Period 10	39008	40540	46621
Period 11	12633	12447	14314
Period 12	20594	21965	24109
Annual Total	151823	158354	178916
Annual Average	12651.92	13196.17	14909.67

Seasonal ratios	Year 1	Year 2	Year 3	Index	Forecast
Period 1	0.026	0.031	0.024	0.027	433.585
Period 2	0.04	0.038	0.038	0.039	618.301
Period 3	0.024	0.024	0.024	0.024	385.6
Period 4	0.076	0.077	0.063	0.072	1157.25
Period 5	0.646	0.662	0.674	0.661	10596.73
Period 6	2.182	2.238	2.201	2.207	35400.71
Period 7	1.538	1.446	1.441	1.475	23654.89
Period 8	0.324	0.332	0.332	0.329	5277.208
Period 9	1.435	1.472	1.498	1.469	23554.92
Period 10	3.083	3.072	3.127	3.094	49624.16
Period 11	0.999	0.943	0.96	0.967	15513.45
Period 12	1.628	1.664	1.617	1.636	26245.69

Annual trend            13546.5  
 Demand forecast    192462.5 Computed



### Anexo 17.9. Pronóstico estacional del PARCHE SCHRADER SBMC2

Data	Year 1	Year 2	Year 3
Period 1	1265	1332	1531
Period 2	1480	1570	1805
Period 3	1108	1185	1247
Period 4	1521	1627	1870
Period 5	1116	1194	1373
Period 6	408	423	451
Period 7	1191	1274	1464
Period 8	2443	2614	3005
Period 9	1625	1738	1998
Period 10	2187	2333	2567
Period 11	1005	1091	1174
Period 12	1938	2073	2383
Annual Total	17287	18454	20868
Annual Average	1440.583	1537.833	1739

Seasonal ratios	Year 1	Year 2	Year 3	Index	Forecast
Period 1	0.878	0.866	0.88	0.875	1651.969
Period 2	1.027	1.021	1.038	1.029	1942.483
Period 3	0.769	0.771	0.717	0.752	1420.421
Period 4	1.056	1.058	1.075	1.063	2007.25
Period 5	0.775	0.776	0.79	0.78	1473.204
Period 6	0.283	0.275	0.259	0.273	514.616
Period 7	0.827	0.828	0.842	0.832	1571.65
Period 8	1.696	1.7	1.728	1.708	3224.833
Period 9	1.128	1.13	1.149	1.136	2144.447
Period 10	1.518	1.517	1.476	1.504	2839.45
Period 11	0.698	0.709	0.675	0.694	1310.526
Period 12	1.345	1.348	1.37	1.355	2557.652

Annual trend            1790.5  
 Demand forecast    22658.5 Computed

### Anexo 17.10. Pronóstico estacional del PARCHE SCHRADER SBR0

Data	Year 1	Year 2	Year 3
Period 1	12936	13734	15793
Period 2	8677	9284	10676
Period 3	14998	16047	17304
Period 4	10616	11359	13062
Period 5	16456	17607	17948
Period 6	18964	20291	23334
Period 7	23777	23301	26796
Period 8	2581	2309	2436
Period 9	2387	2447	2813
Period 10	1870	1893	2176
Period 11	1878	2009	2080
Period 12	2190	2405	2558
Annual Total	117330	122686	136976
Annual Average	9777.5	10223.83	11414.67

Seasonal ratios	Year 1	Year 2	Year 3	Index	Forecast
Period 1	1.323	1.343	1.384	1.35	16514.64
Period 2	0.887	0.908	0.935	0.91	11135.55
Period 3	1.534	1.57	1.516	1.54	18836.93
Period 4	1.086	1.111	1.144	1.114	13624.2
Period 5	1.683	1.722	1.572	1.659	20297.26
Period 6	1.94	1.985	2.044	1.989	24337.82
Period 7	2.432	2.279	2.348	2.353	28782.39
Period 8	0.264	0.226	0.213	0.234	2867.588
Period 9	0.244	0.239	0.246	0.243	2976.399
Period 10	0.191	0.185	0.191	0.189	2312.259
Period 11	0.192	0.197	0.182	0.19	2327.567
Period 12	0.224	0.235	0.224	0.228	2786.392

Annual trend            9823

Demand forecast   146799 Computed

**Anexo 17.11. Pronóstico estacional de la CAMARA ER-12 SUPER BULL PREMIUM TR-13**

Data	Year 1	Year 2	Year 3
Period 1	855	751	863
Period 2	710	748	860
Period 3	598	639	619
Period 4	687	735	960
Period 5	559	598	722
Period 6	628	607	697
Period 7	512	547	628
Period 8	558	597	686
Period 9	414	442	473
Period 10	391	418	480
Period 11	673	720	828
Period 12	697	745	856
Annual Total	7282	7547	8672
Annual Average	606.8333	628.9167	722.6667

Seasonal ratios	Year 1	Year 2	Year 3	Index	Forecast
Period 1	1.409	1.194	1.194	1.266	988.026
Period 2	1.17	1.189	1.19	1.183	923.532
Period 3	0.985	1.016	0.857	0.953	743.643
Period 4	1.132	1.169	1.328	1.21	944.297
Period 5	0.921	0.951	1	0.957	747.043
Period 6	1.035	0.965	0.964	0.988	771.351
Period 7	0.844	0.87	0.869	0.861	671.946
Period 8	0.92	0.949	0.949	0.939	733.239
Period 9	0.682	0.703	0.655	0.68	530.679
Period 10	0.644	0.665	0.664	0.658	513.408
Period 11	1.109	1.145	1.146	1.133	884.562
Period 12	1.149	1.185	1.185	1.173	915.277

Annual trend                    695  
 Demand forecast                9367 Computed

**Anexo 17.12. Pronóstico estacional de la CAMARA FR-14 SUPER BULL PREMIUM TR-13**

Data	Year 1	Year 2	Year 3
Period 1	811	867	996
Period 2	615	657	755
Period 3	572	611	702
Period 4	668	714	821
Period 5	515	550	632
Period 6	541	578	664
Period 7	516	552	634
Period 8	540	577	663
Period 9	447	478	549
Period 10	743	795	914
Period 11	495	529	608
Period 12	575	615	707
Annual Total	7038	7523	8645
Annual Average	586.5	626.9167	720.4167

Seasonal ratios	Year 1	Year 2	Year 3	Index	Forecast
Period 1	1.383	1.383	1.383	1.383	1088.748
Period 2	1.049	1.048	1.048	1.048	825.322
Period 3	0.975	0.975	0.974	0.975	767.513
Period 4	1.139	1.139	1.14	1.139	896.948
Period 5	0.878	0.877	0.877	0.878	690.966
Period 6	0.922	0.922	0.922	0.922	725.981
Period 7	0.88	0.88	0.88	0.88	692.98
Period 8	0.921	0.92	0.92	0.92	724.751
Period 9	0.762	0.762	0.762	0.762	600.155
Period 10	1.267	1.268	1.269	1.268	998.302
Period 11	0.844	0.844	0.844	0.844	664.481
Period 12	0.98	0.981	0.981	0.981	772.352

Annual trend            803.5  
 Demand forecast    9448.5 Computed

**Anexo 17.13. Pronóstico estacional de la CAMARA KR-15 SUPER BULL PREMIUM TR-13**

Data	Year 1	Year 2	Year 3
Period 1	237	264	303
Period 2	272	280	321
Period 3	210	214	245
Period 4	216	231	265
Period 5	251	268	308
Period 6	213	227	237
Period 7	217	232	266
Period 8	306	327	376
Period 9	330	363	440
Period 10	308	350	414
Period 11	150	139	159
Period 12	158	168	181
Annual Total	2868	3063	3515
Annual Average	239	255.25	292.9167

Seasonal ratios	Year 1	Year 2	Year 3	Index	Forecast
Period 1	0.992	1.034	1.034	1.02	326.308
Period 2	1.138	1.097	1.096	1.11	355.159
Period 3	0.879	0.838	0.836	0.851	272.264
Period 4	0.904	0.905	0.905	0.904	289.322
Period 5	1.05	1.05	1.051	1.051	336.045
Period 6	0.891	0.889	0.809	0.863	276.121
Period 7	0.908	0.909	0.908	0.908	290.55
Period 8	1.28	1.281	1.284	1.282	409.981
Period 9	1.381	1.422	1.502	1.435	459.023
Period 10	1.289	1.371	1.413	1.358	434.313
Period 11	0.628	0.545	0.543	0.572	182.861
Period 12	0.661	0.658	0.618	0.646	206.553

Annual trend            323.5

Demand forecast    3838.5 Computed

**Anexo 17.14. Pronóstico estacional de la CAMARA KR-16 SUPER BULL PREMIUM TR-13**

Data	Year 1	Year 2	Year 3
Period 1	271	300	344
Period 2	236	252	289
Period 3	243	260	298
Period 4	224	228	262
Period 5	233	249	286
Period 6	222	237	260
Period 7	299	288	342
Period 8	422	462	542
Period 9	427	456	524
Period 10	395	422	473
Period 11	308	330	390
Period 12	249	265	293
Annual Total	3529	3749	4303
Annual Average	294.0833	312.4167	358.5833

Seasonal ratios	Year 1	Year 2	Year 3	Index	Forecast
Period 1	0.922	0.96	0.959	0.947	370.131
Period 2	0.802	0.807	0.806	0.805	314.628
Period 3	0.826	0.832	0.831	0.83	324.335
Period 4	0.762	0.73	0.731	0.741	289.495
Period 5	0.792	0.797	0.798	0.796	310.959
Period 6	0.755	0.759	0.725	0.746	291.635
Period 7	1.017	0.922	0.954	0.964	376.805
Period 8	1.435	1.479	1.512	1.475	576.514
Period 9	1.452	1.46	1.461	1.458	569.687
Period 10	1.343	1.351	1.319	1.338	522.804
Period 11	1.047	1.056	1.088	1.064	415.745
Period 12	0.847	0.848	0.817	0.837	327.262

Annual trend                    387  
 Demand forecast                4690 Computed

### Anexo 17.15. Pronóstico estacional del PARCHE M-48 EVERWINNER

Data	Year 1	Year 2	Year 3
Period 1	2591	3050	3679
Period 2	772	869	826
Period 3	932	954	1097
Period 4	1250	1380	1586
Period 5	1193	1169	1344
Period 6	1736	1964	2258
Period 7	2069	2213	2544
Period 8	1615	1728	1987
Period 9	1734	1962	2256
Period 10	1092	1261	1220
Period 11	1458	1399	1608
Period 12	3006	3176	3882
Annual Total	19448	21125	24287
Annual Average	1620.667	1760.417	2023.917

Seasonal ratios	Year 1	Year 2	Year 3	Index	Forecast
Period 1	1.599	1.733	1.818	1.716	3819.795
Period 2	0.476	0.494	0.408	0.459	1022.34
Period 3	0.575	0.542	0.542	0.553	1230.73
Period 4	0.771	0.784	0.784	0.78	1735.049
Period 5	0.736	0.664	0.664	0.688	1531.338
Period 6	1.071	1.116	1.116	1.101	2449.927
Period 7	1.277	1.257	1.257	1.264	2812.115
Period 8	0.997	0.982	0.982	0.987	2195.756
Period 9	1.07	1.115	1.115	1.1	2447.435
Period 10	0.674	0.716	0.603	0.664	1478.424
Period 11	0.9	0.795	0.794	0.83	1846.33
Period 12	1.855	1.804	1.918	1.859	4137.263

Annual trend            2419.5  
 Demand forecast    26706.5 Computed

**Anexo 17.16. Pronóstico estacional del PARCHE SCHRADER SBMC3**

Data	Year 1	Year 2	Year 3
Period 1	636	680	782
Period 2	653	698	791
Period 3	783	891	909
Period 4	1165	1139	1321
Period 5	793	848	975
Period 6	892	981	1128
Period 7	955	1048	1320
Period 8	901	974	1119
Period 9	594	635	730
Period 10	767	799	918
Period 11	830	898	1021
Period 12	821	878	1021
Annual Total	9790	10469	12035
Annual Average	815.8333	872.4167	1002.917

Seasonal ratios	Year 1	Year 2	Year 3	Index	Forecast
Period 1	0.78	0.779	0.78	0.78	854.777
Period 2	0.8	0.8	0.789	0.796	873.214
Period 3	0.96	1.021	0.906	0.962	1055.309
Period 4	1.428	1.306	1.317	1.35	1480.48
Period 5	0.972	0.972	0.972	0.972	1065.827
Period 6	1.093	1.124	1.125	1.114	1221.653
Period 7	1.171	1.201	1.316	1.229	1347.914
Period 8	1.104	1.116	1.116	1.112	1219.473
Period 9	0.728	0.728	0.728	0.728	798.16
Period 10	0.94	0.916	0.915	0.924	1012.879
Period 11	1.017	1.029	1.018	1.022	1120.113
Period 12	1.006	1.006	1.018	1.01	1107.702

Annual trend            1122.5  
 Demand forecast    13157.5 Computed



**Anexo 17.17. Pronóstico estacional del PARCHE SCHRADER SBR2**

Data	Year 1	Year 2	Year 3
Period 1	2471	2643	3039
Period 2	2316	2478	2849
Period 3	2584	2764	3178
Period 4	2243	2400	2760
Period 5	3129	3348	3850
Period 6	4356	4660	5358
Period 7	2785	2979	3425
Period 8	2027	2168	2493
Period 9	2485	2658	3056
Period 10	2195	2348	2700
Period 11	3896	4168	4793
Period 12	3299	3529	4058
Annual Total	33786	36143	41559
Annual Average	2815.5	3011.917	3463.25

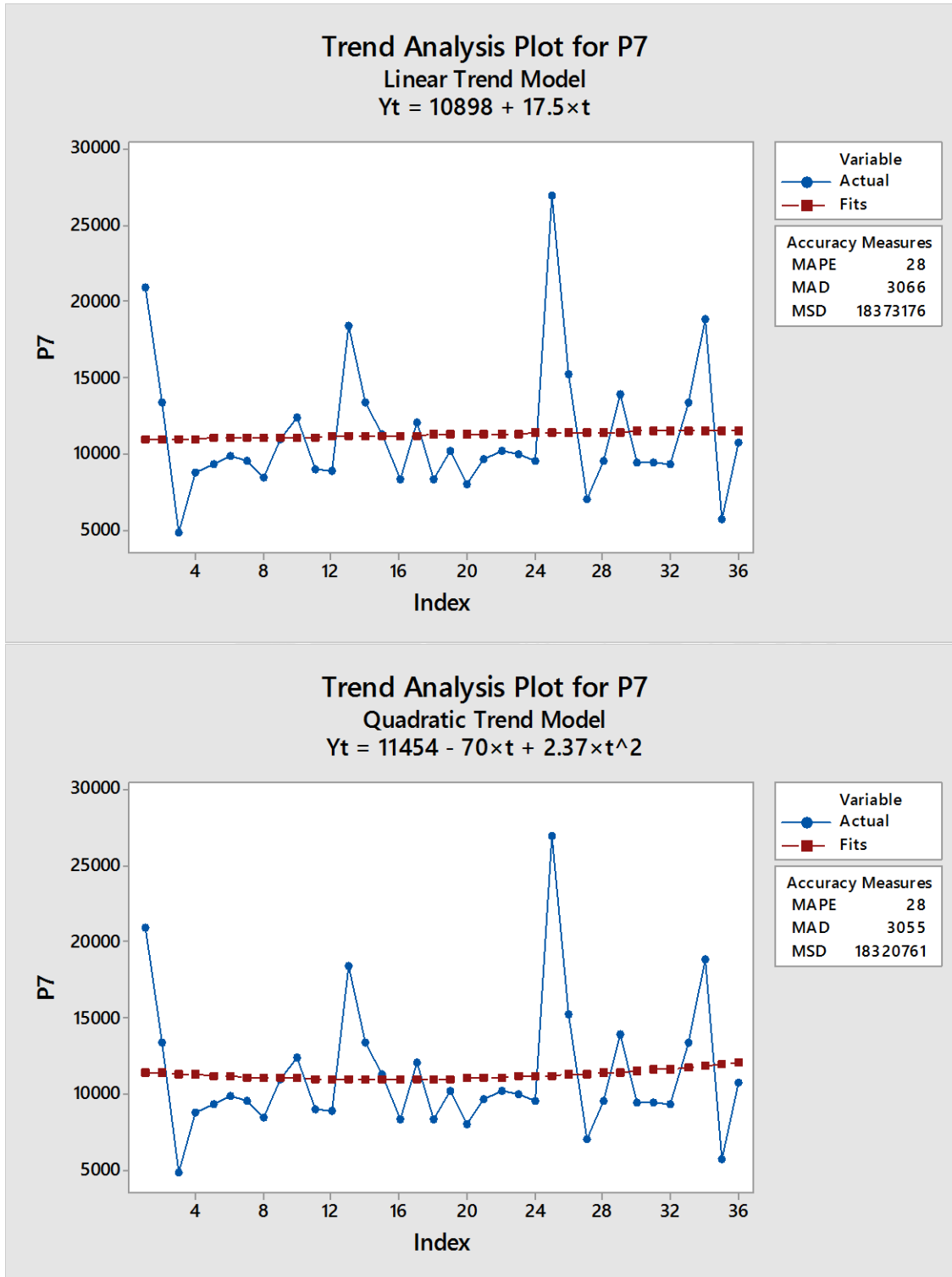
Seasonal ratios	Year 1	Year 2	Year 3	Index	Forecast
Period 1	0.878	0.878	0.877	0.878	3323.398
Period 2	0.823	0.823	0.823	0.823	3115.49
Period 3	0.918	0.918	0.918	0.918	3475.445
Period 4	0.797	0.797	0.797	0.797	3017.626
Period 5	1.111	1.112	1.112	1.112	4209.521
Period 6	1.547	1.547	1.547	1.547	5859.236
Period 7	0.989	0.989	0.989	0.989	3745.711
Period 8	0.72	0.72	0.72	0.72	2726.218
Period 9	0.883	0.882	0.882	0.883	3342.159
Period 10	0.78	0.78	0.78	0.78	2952.439
Period 11	1.384	1.384	1.384	1.384	5240.832
Period 12	1.172	1.172	1.172	1.172	4437.423

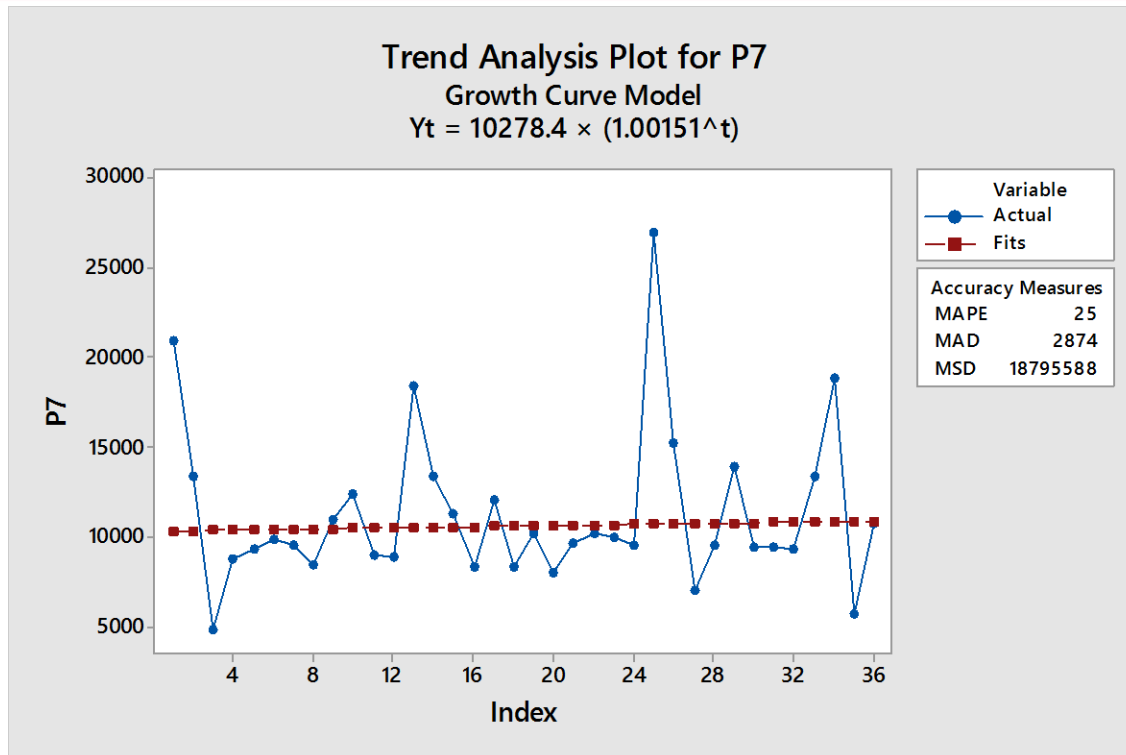
Annual trend            3886.5  
 Demand forecast    45445.5 Computed

### Anexo 18. Reporte Pronostico Estacional Multiplicativo para Parche Schrader SBR1 usando POM

Method		# seasons (use 4 for qtrs, 12 for mos, etc.)			Basis	
Multiplicative Seasonal Method		12			<input checked="" type="radio"/> C <input type="radio"/> U	
Data	Year 1	Year 2	Year 3			
Period 1	15590	14541	16722			
Period 2	16771	17874	19405			
Period 3	12966	18013	18414			
Period 4	19043	23510	25892			
Period 5	10410	10208	14039			
Period 6	19336	18619	22561			
Period 7	20141	22009	24536			
Period 8	15652	16747	19259			
Period 9	25124	26882	30914			
Period 10	2021	3553	2360			
Period 11	18807	19053	21910			
Period 12	20107	21465	23534			
Annual Total	195968	212474	239546			
Annual Average	16330.67	17706.17	19962.17			
Seasonal ratios	Year 1	Year 2	Year 3	Index	Forecast	
Period 1	.955	.821	.838	.871	18972.7	
Period 2	1.027	1.009	.972	1.003	21839.85	
Period 3	.794	1.017	.922	.911	19845.06	
Period 4	1.166	1.328	1.297	1.264	27519.51	
Period 5	.637	.577	.703	.639	13917.93	
Period 6	1.184	1.052	1.13	1.122	24433.17	
Period 7	1.233	1.243	1.229	1.235	26899.08	
Period 8	.958	.946	.965	.956	20827.28	
Period 9	1.538	1.518	1.549	1.535	33431.38	
Period 10	.124	.201	.118	.148	3213.281	
Period 11	1.152	1.076	1.098	1.108	24139.21	
Period 12	1.231	1.212	1.179	1.207	26296.56	
Annual trend	21789					
Demand forecast	261335	Computed				

Anexo 19. Ajuste de tendencias para selección de método causal a mediano plazo





## **Anexo 20. Sistema de Reabastecimiento Conjunto (SRC)**



### Anexo 20.1. Datos para realizar el análisis de Reabastecimiento Conjunto

PRODUCTO	MARCA	ORIGEN	DEMANDA	COSTO
PARCHE SCHRADER SBR1	SCHRADER	BRASIL	239546	S/. 0.13
PARCHE VIPAL R-01	VIPAL	NACIONAL	213104	S/. 0.26
PARCHE VIPAL VD1	VIPAL	NACIONAL	40335	S/. 1.71
CAMARA 300-18 S & M TR-4	S & M	CHINA	11024	S/. 4.30
CAMARA 300-18 SWALLOW TR4	SWALLOW	INDONESIA	11198	S/. 6.50
CAMARA FR-13 SUPER BULL PREMIUN TR-13	SUPER BULL PREMIUN	COREA DEL SUR	13367	S/. 9.90
PARCHE DC110-30 NINGBO	NINGBO	CHINA	178916	S/. 0.06
PARCHE SCHRADER SBMC2	SCHRADER	BRASIL	20868	S/. 1.80
PARCHE SCHRADER SBRO	SCHRADER	BRASIL	136976	S/. 0.10
PARCHE VIPAL R-00	VIPAL	NACIONAL	149178	S/. 0.23
CAMARA 700-16 SUPER BULL PREMIUN TR177A	SUPER BULL PREMIUN	COREA DEL SUR	5752	S/. 18.80
CAMARA 750-16 SUPER BULL PREMIUN TR177A	SUPER BULL PREMIUN	COREA DEL SUR	6583	S/. 19.90
CAMARA 825-16 SUPER BULL PREMIUN TR177A	SUPER BULL PREMIUN	COREA DEL SUR	2409	S/. 26.80
CAMARA ER-12 SUPER BULL PREMIUN TR-13	SUPER BULL PREMIUN	COREA DEL SUR	8500	S/. 8.15
CAMARA FR-14 SUPER BULL PREMIUN TR-13	SUPER BULL PREMIUN	COREA DEL SUR	8645	S/. 10.50
CAMARA KR-15 SUPER BULL PREMIUN TR-13	SUPER BULL PREMIUN	COREA DEL SUR	3515	S/. 15.30
CAMARA KR-16 SUPER BULL PREMIUN TR-13	SUPER BULL PREMIUN	COREA DEL SUR	4303	S/. 15.70
PARCHE M-48 EVERWINNER	NINGBO	CHINA	24287	S/. 1.26
PARCHE SCHRADER SBMC3	SCHRADER	BRASIL	12035	S/. 2.45
PARCHE SCHRADER SBR2	SCHRADER	BRASIL	41559	S/. 0.31
PARCHE SCHRADER SBRC10	SCHRADER	BRASIL	15540	S/. 1.60
PARCHE VIPAL VD2	VIPAL	NACIONAL	14244	S/. 2.53
CAMARA 300-18 HUNG-A TR-4	HUNG-A	INDONESIA	4334	S/. 7.40
CAMARA 300-18 KENDA TR-4	KENDA	NACIONAL	3425	S/. 9.50
CAMARA 400-8 SWALLOW TR87C	SWALLOW	INDONESIA	3933	S/. 5.90
PARCHE DC110-40 NINGBO	NINGBO	CHINA	47015	S/. 0.09
PARCHE SCHRADER SBF1	SCHRADER	BRASIL	49420	S/. 0.20
PARCHE SCHRADER SBF2	SCHRADER	BRASIL	27675	S/. 0.46
PARCHE SCHRADER SBF3	SCHRADER	BRASIL	23682	S/. 0.59
PARCHE SCHRADER SBMC4	SCHRADER	BRASIL	7822	S/. 3.50
PARCHE SCHRADER SBMC5	SCHRADER	BRASIL	4763	S/. 7.00
PARCHE SCHRADER SBR3	SCHRADER	BRASIL	31425	S/. 0.35
PARCHE SCHRADER SBRB1	SCHRADER	BRASIL	110559	S/. 0.10
PARCHE VIPAL R-02	VIPAL	NACIONAL	38871	S/. 0.39
PARCHE VIPAL R-03	VIPAL	NACIONAL	22533	S/. 0.65
PARCHE VIPAL R-04	VIPAL	NACIONAL	20921	S/. 0.81
PARCHE VIPAL RBM-01	VIPAL	NACIONAL	57585	S/. 0.18
CAMARA 1200R20 SUPER BULL PREMIUN TR78A	SUPER BULL PREMIUN	COREA DEL SUR	489	S/. 56.00
CAMARA 300-17 SWALLOW TR4	SWALLOW	INDONESIA	1978	S/. 6.30
CAMARA 410-18 SWALLOW TR-4	SWALLOW	INDONESIA	1798	S/. 8.66
CAMARA 700-15 SUPER BULL PREMIUN TR177A	SUPER BULL PREMIUN	COREA DEL SUR	929	S/. 18.15
CAMARA KR-14 SUPER BULL PREMIUN TR-13	SUPER BULL PREMIUN	COREA DEL SUR	1369	S/. 13.50
PARCHE COLD PATCH L-24	COLD PATCH	NACIONAL	6776	S/. 1.87
PARCHE SCHRADER SBMC6	SCHRADER	BRASIL	1448	S/. 14.30
PARCHE SCHRADER SBR4	SCHRADER	BRASIL	17375	S/. 0.48
PARCHE SCHRADER SBRC12	SCHRADER	BRASIL	7728	S/. 3.00
PARCHE SCHRADER SBRC14	SCHRADER	BRASIL	5504	S/. 2.90
PARCHE SCHRADER SBRC40	SCHRADER	BRASIL	1831	S/. 6.20
PARCHE VIPAL RAC10	VIPAL	NACIONAL	7737	S/. 2.19
PARCHE VIPAL VD3	VIPAL	NACIONAL	6163	S/. 3.73

PARCHE VIPAL VD4	VIPAL	NACIONAL	3629	S/.	5.90
PARCHE VIPAL VD5	VIPAL	NACIONAL	2974	S/.	9.27
PARCHE VIPAL VF-8	VIPAL	NACIONAL	12190	S/.	1.17
CAMARA 1100-20 SUPER BULL PREMIUN TR78A	SUPER BULL PREMIUN	COREA DEL SUR	415	S/.	51.20
CAMARA 1100R20 SUPER BULL PREMIUN TR78A	SUPER BULL PREMIUN	COREA DEL SUR	272	S/.	52.50
CAMARA 275-18 SWALLOW TR4	SWALLOW	INDONESIA	1599	S/.	6.10
CAMARA 300-21 SWALLOW TR-4	SWALLOW	INDONESIA	762	S/.	7.20
CAMARA 400-8 SUPER BULL PREMIUN TR87C	SUPER BULL PREMIUN	COREA DEL SUR	2327		7.70
CAMARA 650-16 SUPER BULL PREMIUN TR177A	SUPER BULL PREMIUN	COREA DEL SUR	614	S/.	17.70
CAMARA ER-13 SUPER BULL PREMIUN TR13	SUPER BULL PREMIUN	COREA DEL SUR	1207	S/.	9.00
PARCHE CP-401 CLASSIC	CLASSIC	CHINA	29376	S/.	0.05
PARCHE DC107-25 NINGBO	NINGBO	CHINA	17664	S/.	0.02
PARCHE DC107-30 NINGBO	NINGBO	CHINA	30562	S/.	0.04
PARCHE DC107-40 NINGBO	NINGBO	CHINA	11358	S/.	0.04
PARCHE DC110-52 NINGBO	NINGBO	CHINA	13445	S/.	0.14
PARCHE SCHRADER SBR5	SCHRADER	BRASIL	2682	S/.	0.65
PARCHE SCHRADER SBRC20	SCHRADER	BRASIL	2763	S/.	2.20
PARCHE VIPAL RAC12	VIPAL	NACIONAL	3470	S/.	3.71
PARCHE VIPAL RT-3	VIPAL	NACIONAL	14760	S/.	0.57
PARCHE VIPAL VD6	VIPAL	NACIONAL	1114	S/.	17.06
CAMARA 400-8ARL TR 87C	ARL	INDIA	987	S/.	5.95
CAMARA 1000-20 SUPER BULL PREMIUN TR78A	SUPER BULL PREMIUN	COREA DEL SUR	192	S/.	42.60
CAMARA 1000R20 SUPER BULL PREMIUN TR78A	SUPER BULL PREMIUN	COREA DEL SUR	139	S/.	46.50
CAMARA 1100-20 CONCORD PLUS TR78A	CONCORD PLUS	NACIONAL	29	S/.	44.40
CAMARA 1100-20ARL TR78A	ARL	INDIA	180	S/.	36.80
CAMARA 1100R22 SUPER BULL PREMIUN TR78A	SUPER BULL PREMIUN	COREA DEL SUR	14	S/.	54.20
CAMARA 11L-16 SUPER BULL PREMIUN TR15	SUPER BULL PREMIUN	COREA DEL SUR	9	S/.	28.00
CAMARA 12.5/80-18 SUPER BULL PREMIUN TR218A	SUPER BULL PREMIUN	COREA DEL SUR	40	S/.	40.00
CAMARA 1200-20 CONCORD PLUS	CONCORD PLUS	NACIONAL	51	S/.	56.00
CAMARA 1200-20 SUPER BULL PREMIUN TR78A	SUPER BULL PREMIUN	COREA DEL SUR	138	S/.	55.60
CAMARA 1200-20ARL TR78A	ARL	INDIA	120	S/.	40.80
CAMARA 1200-24 SUPER BULL PREMIUN TR78A	SUPER BULL PREMIUN	COREA DEL SUR	35	S/.	62.00
CAMARA 14.9/13-24 SUPER BULL PREMIUN TR 218A	SUPER BULL PREMIUN	COREA DEL SUR	4	S/.	64.00
CAMARA 14.9/13-28 SUPER BULL PREMIUN	SUPER BULL PREMIUN	COREA DEL SUR	13	S/.	73.50
CAMARA 1400-24 TR179A SUPER BULL PREMIUM	SUPER BULL PREMIUN	COREA DEL SUR	11	S/.	83.50
CAMARA 18.4/15-38 SUPER BULL PREMIUN TR218A	SUPER BULL PREMIUN	COREA DEL SUR	4	S/.	137.00
CAMARA 19.5-24 SUPER BULL PREMIUM TR218A	SUPER BULL PREMIUN	COREA DEL SUR	18	S/.	91.00
CAMARA 20.5-25 SUPER BULL PREMIUN TRJ1175C	SUPER BULL PREMIUN	COREA DEL SUR	6	S/.	152.00
CAMARA 20.8 X 38 NEXEN TR218A	NEXEN	NACIONAL	5	S/.	222.66
CAMARA 23.5-25 SUPER BULL PREMIUN TRJ1175C	SUPER BULL PREMIUN	COREA DEL SUR	15	S/.	167.00
CAMARA 26.5-25 SUPER BULL PREMIUN TRJ1175C	SUPER BULL PREMIUN	COREA DEL SUR	4	S/.	183.00
CAMARA 275/300-17 GOSTONE TR 4	GOSTONE	NACIONAL	238	S/.	4.50
CAMARA 275/300-17FORTUNE TR-4	FORTUNE	NACIONAL	68	S/.	7.69
CAMARA 275-18 DURO TR-4	DURO	NACIONAL	74	S/.	9.90
CAMARA 275-18 KENDA TR-4	KENDA	NACIONAL	21	S/.	9.80
CAMARA 275-18 S & M TR-4	S & M	CHINA	177	S/.	3.98
CAMARA 300-17 HUNG-A TR-4	HUNG-A	INDONESIA	441	S/.	7.00
CAMARA 300-17 KENDA TR-4	KENDA	NACIONAL	338	S/.	9.80
CAMARA 300-17 S & M TR-4	S & M	CHINA	410	S/.	4.20
CAMARA 300-18ARL TR-4	ARL	INDIA	1145	S/.	7.16
CAMARA 300-21 KENDA TR-4	KENDA	NACIONAL	36	S/.	11.24
CAMARA 350-8 S & M TR87C	S & M	CHINA	145	S/.	3.50
CAMARA 350-8 SWALLOW TR87C	SWALLOW	INDONESIA	215	S/.	5.30
CAMARA 400-8 GOSTONE TR 87C	GOSTONE	NACIONAL	1635	S/.	5.30
CAMARA 400-8 KENDA TR87C	KENDA	NACIONAL	863	S/.	8.14

CAMARA 400-8 S & M TR87C	S & M	CHINA	1122	S/. 3.95
CAMARA 400-8 SUPER BULL PREMIUM TR-13	SUPER BULL PREMIUM	COREA DEL SUR	166	S/. 7.70
CAMARA 400-8 TRULPER TR 87C	TRULPER	NACIONAL	286	S/. 4.50
CAMARA 400-8M MARELY	MARELY	NACIONAL	15	S/. 5.00
CAMARA 410-18 GOSTONE	GOSTONE	NACIONAL	39	S/. 8.50
CAMARA 410-18 KENDA TR-4	KENDA	NACIONAL	84	S/. 12.26
CAMARA 410-18 S & M TR-4	S & M	CHINA	170	S/. 5.70
CAMARA 700-15 CAMEL	CAMELL	NACIONAL	108	S/. 23.70
CAMARA 700-15CP CONCORD PLUS TR 177A	CONCORD PLUS	NACIONAL	57	S/. 19.89
CAMARA 700-16 CONCORD PLUS	CONCORD PLUS	NACIONAL	146	S/. 19.00
CAMARA 700X16 NEXEN	NEXEN	NACIONAL	226	S/. 24.51
CAMARA 750-16 CAMELL TR177A	CAMELL	NACIONAL	220	S/. 20.33
CAMARA 750-16D DIAMOND	DIAMOND	NACIONAL	15	S/. 15.00
CAMARA 750-16-R SUPER BULL PREMIUM REFORZADA TR177A	SUPER BULL PREMIUM	COREA DEL SUR	166	S/. 19.90
CAMARA 750X16 NEXEN	NEXEN	NACIONAL	114	S/. 27.05
CAMARA 825-20 SUPER BULL PREMIUM TR177A	SUPER BULL PREMIUM	COREA DEL SUR	75	S/. 33.00
CAMARA 825-20C CONCORD PLUS TR177A	CONCORD PLUS	NACIONAL	5	S/. 32.14
CAMARA 900-20 SUPER BULL PREMIUM TR175A	SUPER BULL PREMIUM	COREA DEL SUR	113	S/. 38.70
CAMARA DE BICICLETA 20X1.90/2.125 CST ARO 20	CST	NACIONAL	53	S/. 4.50
CAMARA DE BICICLETA 24X1.90/2.125 CST ARO 24	CST	NACIONAL	69	S/. 4.50
CAMARA DE BICICLETA 26X1.90/2.125 CST ARO 26	CST	NACIONAL	204	S/. 4.80
CAMARA ER-12 CAMELL TR13	CAMELL	NACIONAL	26	S/. 8.74
CAMARA ER-12 NEXEN TR-13	NEXEN	NACIONAL	202	S/. 9.53
CAMARA ER-12C CONCORD PLUS TR13	CONCORD PLUS	NACIONAL	724	S/. 8.37
CAMARA ER-15 DIAMOND TR-13	DIAMOND	NACIONAL	133	S/. 9.25
CAMARA FR12 ARL	ARL	INDIA	374	S/. 7.98
CAMARA FR13 ARL	ARL	INDIA	282	S/. 8.40
CAMARA FR-13 NEXEN TR13	NEXEN	NACIONAL	85	S/. 12.18
CAMARA FR-14CP CONCORD PLUS TR 13	CONCORD PLUS	NACIONAL	110	S/. 9.99
CAMARA FR-15 DIAMOND	DIAMOND	NACIONAL	295	S/. 9.50
CAMARA GR-13 CONCORD PLUS TR-13	CONCORD PLUS	NACIONAL	60	S/. 10.11
CAMARA GR-14 SUPER BULL PREMIUM TR-13	SUPER BULL PREMIUM	COREA DEL SUR	641	S/. 12.20
CAMARA KR-15 NEXEN TR-13	NEXEN	NACIONAL	5	S/. 20.97
CAMARA KR-15 SUPER BULL TR177A	SUPER BULL	COREA DEL SUR	28	S/. 13.93
CAMARA KR-16C CAMELL TR13	CAMELL	NACIONAL	6	S/. 17.00
CAMARA KR-16CP CONCORD PLUS TR177A	CONCORD PLUS	NACIONAL	43	S/. 16.87
PARCHE COLD PATCH S-48	COLD PATCH	NACIONAL	5560	S/. 1.87
PARCHE COLD PATCH YP3-219	COLD PATCH	NACIONAL	938	S/. 0.03
PARCHE COLD PATCH YP3-221	COLD PATCH	NACIONAL	2831	S/. 0.06
PARCHE CP-201 CLASSIC	CLASSIC	CHINA	1196	S/. 0.02
PARCHE CP-202 CLASSIC	CLASSIC	CHINA	6805	S/. 0.04
PARCHE CP-203 CLASSIC	CLASSIC	CHINA	4275	S/. 0.06
PARCHE CP-402 CLASSIC	CLASSIC	CHINA	7749	S/. 0.08
PARCHE CP-403 CLASSIC	CLASSIC	CHINA	4228	S/. 0.13
PARCHE CP-404 CLASSIC	CLASSIC	CHINA	1833	S/. 0.23
PARCHE CP-501 DE LONA NINGBO	NINGBO	CHINA	1702	S/. 1.06
PARCHE CP-502 DE LONA NINGBO	NINGBO	CHINA	539	S/. 1.50
PARCHE CP-503 DE LONA NINGBO	NINGBO	CHINA	300	S/. 1.56
PARCHE DC107-52 NINGBO	NINGBO	CHINA	4391	S/. 0.09
PARCHE DC107-65 NINGBO	NINGBO	CHINA	3414	S/. 0.17
PARCHE DC107-75 NINGBO	NINGBO	CHINA	4025	S/. 0.23
PARCHE DC108-34X24 NINGBO	NINGBO	CHINA	440	S/. 1.44
PARCHE DC108-72X40 NINGBO	NINGBO	CHINA	254	S/. 1.46
PARCHE DC110-75 NINGBO	NINGBO	CHINA	1839	S/. 0.26
PARCHE EWQ-09 CLASSIC	CLASSIC	CHINA	6174	S/. 0.11



PARCHE P-2 PANESA	PANESA	NACIONAL	4242	S/.	0.13
PARCHE PARA PISCINA #62068 EN STICKERS	TAIWAN	NACIONAL	28	S/.	2.50
PARCHE PARA PISCINA 59632 NP	TAIWAN	NACIONAL	121	S/.	1.70
PARCHE REM-00 RUZI	RUZI	BRASIL	170	S/.	0.19
PARCHE REM-01 RUZI	RUZI	BRASIL	1976	S/.	0.25
PARCHE REM-02 RUZI	RUZI	BRASIL	34	S/.	0.26
PARCHE REM-03 RUZI	RUZI	BRASIL	390	S/.	0.26
PARCHE REM-04 RUZI	RUZI	BRASIL	848	S/.	0.31
PARCHE SCHRADER SBMC7	SCHRADER	BRASIL	436	S/.	21.00
PARCHE SCHRADER SBMC8	SCHRADER	BRASIL	154	S/.	30.60
PARCHE SCHRADER SBMC9	SCHRADER	BRASIL	26	S/.	30.00
PARCHE SCHRADER SBR10	SCHRADER	BRASIL	628	S/.	1.98
PARCHE SCHRADER SBR6	SCHRADER	BRASIL	825	S/.	2.04
PARCHE SCHRADER SBR7	SCHRADER	BRASIL	1726	S/.	0.77
PARCHE SCHRADER SBR8	SCHRADER	BRASIL	2037	S/.	1.14
PARCHE SCHRADER SBRB2	SCHRADER	BRASIL	5364	S/.	0.20
PARCHE SCHRADER SBRC22	SCHRADER	BRASIL	800	S/.	3.65
PARCHE SCHRADER SBRC24	SCHRADER	BRASIL	135	S/.	3.80
PARCHE SCHRADER SBRC42	SCHRADER	BRASIL	894	S/.	10.00
PARCHE SCHRADER SBRC44	SCHRADER	BRASIL	275	S/.	12.50
PARCHE TFMD-02 TIREFIX	TIREFIX	BRASIL	1901	S/.	1.58
PARCHE TFMD-03 TIREFIX	TIREFIX	BRASIL	1110	S/.	2.10
PARCHE TFMD-04 TIREFIX	TIREFIX	BRASIL	186	S/.	3.25
PARCHE TFMD-05 TIREFIX	TIREFIX	BRASIL	154	S/.	5.70
PARCHE TFRC-110 TIREFIX	TIREFIX	BRASIL	1231	S/.	1.48
PARCHE TFRC-112 TIREFIX	TIREFIX	BRASIL	1034	S/.	2.15
PARCHE TFRC-114 TIREFIX	TIREFIX	BRASIL	1123	S/.	2.55
PARCHE TFRC-120 TIREFIX	TIREFIX	BRASIL	142	S/.	2.70
PARCHE VD10 VIPAL	VIPAL	NACIONAL	86	S/.	80.51
PARCHE VF-3 VIPAL	VIPAL	NACIONAL	5256	S/.	0.45
PARCHE VIPAL R-05	VIPAL	NACIONAL	3291	S/.	1.88
PARCHE VIPAL R-06	VIPAL	NACIONAL	764	S/.	2.69
PARCHE VIPAL RAC08	VIPAL	NACIONAL	372	S/.	2.19
PARCHE VIPAL RAC14	VIPAL	NACIONAL	2128	S/.	4.31
PARCHE VIPAL RAC20	VIPAL	NACIONAL	490	S/.	6.19
PARCHE VIPAL RAC22	VIPAL	NACIONAL	334	S/.	6.23
PARCHE VIPAL RAC24	VIPAL	NACIONAL	19	S/.	7.67
PARCHE VIPAL RAC25	VIPAL	NACIONAL	85	S/.	8.54
PARCHE VIPAL RAC35	VIPAL	NACIONAL	432	S/.	12.05
PARCHE VIPAL RAC40	VIPAL	NACIONAL	280	S/.	10.77
PARCHE VIPAL RAC42	VIPAL	NACIONAL	49	S/.	13.75
PARCHE VIPAL RAC44	VIPAL	NACIONAL	42	S/.	16.51
PARCHE VIPAL RBM-02	VIPAL	NACIONAL	1609	S/.	0.26
PARCHE VIPAL VD7	VIPAL	NACIONAL	284	S/.	25.08
PARCHE VIPAL VD8	VIPAL	NACIONAL	132	S/.	41.19
PARCHE VIPAL VD9	VIPAL	NACIONAL	5	S/.	52.40
PARCHE VIPAL VF-6	VIPAL	NACIONAL	5336	S/.	0.83

### Anexo 20.2. Artículos de origen Nacional

PAÍS	PERÚ
MARCA	
COSTO MAYOR	S/. 15.10
COSTO MENOR	(+) Revisión
VIPAL	S/. 4.86 S/. 17.58
CONCORD PLUS	S/. 4.86 S/. 17.58
COLD PATCH	S/. 4.86 S/. 17.58
KENDA	S/. 4.86 S/. 17.58
CAMELL	S/. 4.86 S/. 17.58
CST	S/. 4.86 S/. 17.58
DIAMOND	S/. 4.86 S/. 17.58
DURO	S/. 4.86 S/. 17.58
FORTUNE	S/. 4.86 S/. 17.58
GOSTONE	S/. 4.86 S/. 17.58
MARELY	S/. 4.86 S/. 17.58
NEXEN	S/. 4.86 S/. 17.58
PANESA	S/. 4.86 S/. 17.58
TAIWAN	S/. 4.86 S/. 17.58
TRULPER	S/. 4.86 S/. 17.58
COSTO POSESIÓN (%)	21.21%

COSTO TOTAL PEDIDO	S/. 219.22	S/. 287.26	S/. 194.92	S/. 311.56	S/. 301.84	S/. 136.60	S/. 277.54
EVERWINNE	42	56	37	61	59	25	54
Costo Fijo Mayor	S/. 15.10						
Costo Menor	S/. 4.86						

Incluye gastos en negociaciones para la compra: horas-hombre del responsable, costo de llamadas telefónicas, contrato de transportista y coordinaciones de recepción.

EJEMPLO 1

H-H (COMPRAS)	200
Llamadas	19.22
COSTO TOTAL PEDIDO	219.22

PRODUCTO	MARCA	DEMANDA (ANUAL)	COSTO UNITARIO (S/.)	EOQ	TIEMPO ENTRE REVISIÓN (MESES)	Alpha (α)	EOQ AJUSTADO	TIEMPO ENTRE REVISIÓN AJUSTADO (MESES)	REDONDEADO A DOS (MESES)	CLASIFICACIÓN ABC MULTICRITERIO	N° DE PEDIDOS AL AÑO
PARCHE VIPAL R-01	VIPAL	213104	S/. 0.26	11643	0.66	0.3187	13141	0.74	1	A	12
PARCHE VIPAL VD1	VIPAL	40335	S/. 1.71	1976	0.59	0.6813	2488	0.74	1	A	12
PARCHE VIPAL R-00	VIPAL	149178	S/. 0.23	10260	0.83		10260	0.83	1	A	12
PARCHE VIPAL VD2	VIPAL	14244	S/. 2.53	966	0.81		966	0.81	1	A	12
CAMARA 300-18 KENDA TR-4	KENDA	3425	S/. 9.50	245	0.86		245	0.86	1	B	12
PARCHE VIPAL R-02	VIPAL	38871	S/. 0.39	4063	1.25		4063	1.25	1	B	12
PARCHE VIPAL R-03	VIPAL	22533	S/. 0.65	2390	1.27		2390	1.27	1	B	12
PARCHE VIPAL R-04	VIPAL	20921	S/. 0.81	2071	1.19		2071	1.19	1	B	12
PARCHE VIPAL RBM-01	VIPAL	57585	S/. 0.18	7230	1.51		7230	1.51	2	B	6
PARCHE COLD PATCH L-24	COLD PATCH	6776	S/. 1.87	775	1.37		775	1.37	1	B	12
PARCHE VIPAL RAC10	VIPAL	7737	S/. 2.19	765	1.19		765	1.19	1	B	12
PARCHE VIPAL VD3	VIPAL	6163	S/. 3.73	524	1.02		524	1.02	1	B	12
PARCHE VIPAL VD4	VIPAL	3629	S/. 5.90	320	1.06		320	1.06	1	B	12
PARCHE VIPAL VD5	VIPAL	2974	S/. 9.27	231	0.93		231	0.93	1	B	12
PARCHE VIPAL VF-8	VIPAL	12190	S/. 1.17	1312	1.29		1312	1.29	1	B	12
PARCHE VIPAL RAC12	VIPAL	3470	S/. 3.71	394	1.36		394	1.36	1	C	12
PARCHE VIPAL RT-3	VIPAL	14760	S/. 0.57	2065	1.68		2065	1.68	2	C	6
PARCHE VIPAL VD6	VIPAL	1114	S/. 17.06	105	1.13		105	1.13	1	C	12
CAMARA 1100-20 CONCORD PLUS TR78A	CONCORD PLUS	29	S/. 44.40	11	4.55		11	4.55	4	C	3
CAMARA 1200-20 CONCORD PLUS	CONCORD PLUS	51	S/. 56.00	13	3.06		13	3.06	4	C	3
CAMARA 20.8 X 38 NEXEN TR218A	NEXEN	5	S/. 222.66	2	4.80		2	4.80	4	C	3
CAMARA 275/300-17 GOSTONE TR 4	GOSTONE	238	S/. 4.50	94	4.74		94	4.74	4	C	3
CAMARA 275/300-17 FORTUNE TR-4	FORTUNE	68	S/. 7.69	39	6.88		39	6.88	8	C	1.5
CAMARA 275-18 DURO TR-4	DURO	74	S/. 9.90	36	5.84		36	5.84	4	C	3
CAMARA 275-18 KENDA TR-4	KENDA	21	S/. 9.80	19	10.86		19	10.86	8	C	1.5
CAMARA 300-17 KENDA TR-4	KENDA	338	S/. 9.80	76	2.70		76	2.70	2	C	6
CAMARA 300-21 KENDA TR-4	KENDA	36	S/. 11.24	24	8.00		24	8.00	8	C	1.5
CAMARA 400-8 GOSTONE TR 87C	GOSTONE	1635	S/. 5.30	227	1.67		227	1.67	2	C	6
CAMARA 400-8 KENDA TR87C	KENDA	863	S/. 8.14	133	1.85		133	1.85	2	C	6
CAMARA 400-8 TRULPER TR 87C	TRULPER	286	S/. 4.50	103	4.32		103	4.32	4	C	3
CAMARA 400-8M MARELY	MARELY	15	S/. 5.00	23	18.40		23	18.40	16	C	0.75
CAMARA 410-18 GOSTONE	GOSTONE	39	S/. 8.50	28	8.62		28	8.62	8	C	1.5
CAMARA 410-18 KENDA TR-4	KENDA	84	S/. 12.26	34	4.86		34	4.86	4	C	3
CAMARA 700-15 CAMEL	CAMELL	108	S/. 23.70	28	3.11		28	3.11	4	C	3
CAMARA 700-15CP CONCORD PLUS TR 177A	CONCORD PLUS	57	S/. 19.89	22	4.63		22	4.63	4	C	3
CAMARA 700-16 CONCORD PLUS	CONCORD PLUS	146	S/. 19.00	36	2.96		36	2.96	2	C	6
CAMARA 700X16 NEXEN	NEXEN	226	S/. 24.51	40	2.12		40	2.12	2	C	6
CAMARA 750-16 CAMELL TR177A	CAMELL	220	S/. 20.33	43	2.35		43	2.35	2	C	6
CAMARA 750-16D DIAMOND	DIAMOND	15	S/. 15.00	13	10.40		13	10.40	8	C	1.5
CAMARA 750X16 NEXEN	NEXEN	114	S/. 27.05	27	2.84		27	2.84	2	C	6

CAMARA 825-20C CONCORD PLUS TR177A	CONCORD PLUS	5	S/. 32.14	6	14.40		6	14.40	16	C	0.75
CAMARA DE BICICLETA 20X1.90/2.125 CST ARO 20	CST	53	S/. 4.50	45	10.19		45	10.19	8	C	1.5
CAMARA DE BICICLETA 24X1.90/2.125 CST ARO 24	CST	69	S/. 4.50	51	8.87		51	8.87	8	C	1.5
CAMARA DE BICICLETA 26X1.90/2.125 CST ARO 26	CST	204	S/. 4.80	84	4.94		84	4.94	4	C	3
CAMARA ER-12 CAMELL TR13	CAMELL	26	S/. 8.74	23	10.62		23	10.62	8	C	1.5
CAMARA ER-12 NEXEN TR-13	NEXEN	202	S/. 9.53	60	3.56		60	3.56	4	C	3
CAMARA ER-12C CONCORD PLUS TR13	CONCORD PLUS	724	S/. 8.37	120	1.99		120	1.99	2	C	6
CAMARA ER-15 DIAMOND TR-13	DIAMOND	133	S/. 9.25	49	4.42		49	4.42	4	C	3
CAMARA FR-13 NEXEN TR13	NEXEN	85	S/. 12.18	35	4.94		35	4.94	4	C	3
CAMARA FR-14CP CONCORD PLUS TR 13	CONCORD PLUS	110	S/. 9.99	43	4.69		43	4.69	4	C	3
CAMARA FR-15 DIAMOND	DIAMOND	295	S/. 9.50	72	2.93		72	2.93	2	C	6
CAMARA GR-13 CONCORD PLUS TR-13	CONCORD PLUS	60	S/. 10.11	32	6.40		32	6.40	8	C	1.5
CAMARA KR-15 NEXEN TR-13	NEXEN	5	S/. 20.97	7	16.80		7	16.80	16	C	0.75
CAMARA KR-16C CAMELL TR13	CAMELL	6	S/. 17.00	8	16.00		8	16.00	16	C	0.75
CAMARA KR-16CP CONCORD PLUS TR177A	CONCORD PLUS	43	S/. 16.87	21	5.86		21	5.86	4	C	3
PARCHE COLD PATCH S-48	COLD PATCH	5560	S/. 1.87	702	1.52		702	1.52	2	C	6
PARCHE COLD PATCH YP3-219	COLD PATCH	938	S/. 0.03	2340	29.94		2340	29.94	32	C	0.375
PARCHE COLD PATCH YP3-221	COLD PATCH	2831	S/. 0.06	2859	12.12		2859	12.12	16	C	0.75
PARCHE P-2 PANESA	PANESA	4242	S/. 0.13	2372	6.71		2372	6.71	8	C	1.5
PARCHE PARA PISCINA #62068 EN STICKERS	TAIWAN	28	S/. 2.50	44	18.86		44	18.86	16	C	0.75
PARCHE PARA PISCINA 59632 NP	TAIWAN	121	S/. 1.70	109	10.81		109	10.81	8	C	1.5
PARCHE VD10 VIPAL	VIPAL	86	S/. 80.51	14	1.95		14	1.95	2	C	6
PARCHE VF-3 VIPAL	VIPAL	5256	S/. 0.45	1389	3.17		1389	3.17	4	C	3
PARCHE VIPAL R-05	VIPAL	3291	S/. 1.88	540	1.97		540	1.97	2	C	6
PARCHE VIPAL R-06	VIPAL	764	S/. 2.69	218	3.42		218	3.42	4	C	3
PARCHE VIPAL RAC08	VIPAL	372	S/. 2.19	168	5.42		168	5.42	4	C	3
PARCHE VIPAL RAC14	VIPAL	2128	S/. 4.31	287	1.62		287	1.62	2	C	6
PARCHE VIPAL RAC20	VIPAL	490	S/. 6.19	115	2.82		115	2.82	2	C	6
PARCHE VIPAL RAC22	VIPAL	334	S/. 6.23	95	3.41		95	3.41	4	C	3
PARCHE VIPAL RAC24	VIPAL	19	S/. 7.67	21	13.26		21	13.26	16	C	0.75
PARCHE VIPAL RAC25	VIPAL	85	S/. 8.54	41	5.79		41	5.79	4	C	3
PARCHE VIPAL RAC35	VIPAL	432	S/. 12.05	78	2.17		78	2.17	2	C	6
PARCHE VIPAL RAC40	VIPAL	280	S/. 10.77	66	2.83		66	2.83	2	C	6
PARCHE VIPAL RAC42	VIPAL	49	S/. 13.75	25	6.12		25	6.12	8	C	1.5
PARCHE VIPAL RAC44	VIPAL	42	S/. 16.51	21	6.00		21	6.00	8	C	1.5
PARCHE VIPAL RBM-02	VIPAL	1609	S/. 0.26	1010	7.53		1010	7.53	8	C	1.5
PARCHE VIPAL VD7	VIPAL	284	S/. 25.08	44	1.86		44	1.86	2	C	6
PARCHE VIPAL VD8	VIPAL	132	S/. 41.19	24	2.18		24	2.18	2	C	6
PARCHE VIPAL VD9	VIPAL	5	S/. 52.40	4	9.60		4	9.60	8	C	1.5
PARCHE VIPAL VF-6	VIPAL	5336	S/. 0.83	1030	2.32		1030	2.32	2	C	6

1.0000

1.00  
Período Base

### Anexo 20.3. Artículos de Puerto Quingdao

PUERTO	CHINA (HONG KONG)
PAÍS	CHINA
MARCA	S&M

COSTO MAYOR	S/.	289.15	
COSTO MENOR			(+) Revisión
<b>S&amp;M</b>	S/.	19.49	S/.
COSTO POSESIÓN (%)		21.21%	

COSTO TOTAL PEDIDO	S/.	756.91	S/.	639.97	S/.	523.03	S/.	737.42
S&M	# Ítems	24	18	12	23			
Costo Fijo Mayor	S/.	289.15						
Costo Menor	S/.	19.49						

#### EJEMPLO 1

H-H (COMEX)	480
Llamadas	41.91
Gastos fijos (Importación)	235
Agente de carga	125
Agente de aduanas	110
<b>COSTO TOTAL PEDIDO</b>	<b>756.91</b>

Incluye gastos en negociaciones para la compra internacional: horas-hombre del responsable, costo de llamadas telefónicas,

PRODUCTO	MARCA	DEMANDA (ANUAL)	COSTO UNITARIO (S/.)	EOQ	TIEMPO ENTRE REVISIÓN (MESES)	Alpha ( $\alpha$ )	EOQ AJUSTADO	TIEMPO ENTRE REVISIÓN AJUSTADO (MESES)	REDONDEADO A POTENCIA DE DOS (MESES)	CLASIFICACIÓN ABC MULTICRITERIO	N° DE PEDIDOS AL AÑO
CAMARA 300-18 S & MTR-4	S & M	11024	S/.	4.30	883	0.96	1.000	2788	3.03	A	4
CAMARA 275-18 S & MTR-4	S & M	177	S/.	3.98	117	7.93		117	7.93	C	2
CAMARA 300-17 S & MTR-4	S & M	410	S/.	4.20	173	5.06		173	5.06	C	2
CAMARA 350-8 S & MTR87C	S & M	145	S/.	3.50	113	9.35		113	9.35	C	1
CAMARA 400-8 S & MTR87C	S & M	1122	S/.	3.95	294	3.14		294	3.14	C	4
CAMARA 410-18 S & MTR-4	S & M	170	S/.	5.70	96	6.78		96	6.78	C	2
							1.000		3.00		

Periodo Base

**Anexo 20.4. Artículos de Puerto Nhava Sheva**

PUERTO	NHAVA SHEVA
PAÍS	INDIA
MARCA	ARL

COSTO MAYOR	S/. 295.75	
COSTO MENOR		(+) Revisión
<b>ARL</b>	S/. 25.96	S/. 38.68
COSTO POSESIÓN (%)	21.21%	

COSTO TOTAL PEDIDO	S/. 1,118.94	S/. 972.42	S/. 1,088.72	S/. 832.86
ARL # Ítems	29	27	32	21
<b>Costo Fijo Mayor</b>	S/. 295.75			
<b>Costo Menor</b>	S/. 25.96			

**EJEMPLO 1**

H-H (COMEX)	800
Llamadas	53.94
Gastos fijos (Importación)	265
Agente de carga	140
Agente de aduanas	125
<b>COSTO TOTAL PEDIDO</b>	<b>1118.9</b>

Incluye gastos en negociaciones para la compra internacional: horas-hombre del responsable, costo de llamadas telefónicas, agenciamiento de

PRODUCTO	MARCA	DEMANDA (ANUAL)	COSTO UNITARIO (S/.)	EOQ	TIEMPO ENTRE REVISIÓN (MESES)	Alpha (α)	EOQ AJUSTADO	TIEMPO ENTRE REVISIÓN AJUSTADO (MESES)	REDONDEADO A DOS (MESES)	CLASIFICACIÓN ABC MULTICRITERIO	N° DE PEDIDOS AL AÑO
CAMARA 400-8ARL TR 87C	ARL	987	S/. 5.95	246	2.99	0.208	396	4.81	5	C	2.4
CAMARA 1100-20ARL TR78A	ARL	180	S/. 36.80	43	2.87	0.251	73	4.81	5	C	2.4
CAMARA 1200-20ARL TR78A	ARL	120	S/. 40.80	33	3.30	0.152	49	4.81	5	C	2.4
CAMARA 300-18ARL TR-4	ARL	1145	S/. 7.16	242	2.54	0.342	460	4.81	5	C	2.4
CAMARA FR12 ARL	ARL	374	S/. 7.98	131	4.20	0.041	151	4.81	5	C	2.4
CAMARA FR13 ARL	ARL	282	S/. 8.40	111	4.72	0.006	114	4.81	5	C	2.4
						1.000		5.00			

Período Base

Anexo 20.5. Artículos de Puerto Santos

PUERTO	SANTOS		
PAÍS	BRASIL		
MARCA	SCHRADER	TIREFIX	RUZI

COSTO MAYOR	S/.	249.95	
COSTO MENOR			(+) Revisión
SCHRADER	S/.	14.85	S/.
TIREFIX	S/.	15.97	S/.
RUZI	S/.	15.97	S/.
COSTO POSESIÓN (%)		21.21%	

COSTO TOTAL PEDIDO	S/.	662.84	S/.	482.80	S/.	557.54	S/.	379.12
SCHRADER # Ítems		27		18		21		8
Costo Fijo Mayor	S/.	245.93						
Costo Menor	S/.	14.85						

COSTO TOTAL PEDIDO	S/.	431.32	S/.	444.47	S/.	365.72	S/.	397.22
TIREFIX / RU # Ítems		11		12		7		9
Costo Fijo Mayor	S/.	253.97						
Costo Menor	S/.	15.97						

EJEMPLO 1

H-H (COMEX)	400
Llamadas	27.84
Gastos fijos (Importación)	235
Agente de carga	125
Agente de aduanas	110
<b>COSTO TOTAL PEDIDO</b>	<b>662.84</b>

PRODUCTO	MARCA	DEMANDA (ANUAL)	COSTO UNITARIO (S/.)	EOQ	TIEMPO ENTRE REVISIÓN (MESES)	Alpha ( $\alpha$ )	EOQ AJUSTADO	TIEMPO ENTRE REVISIÓN AJUSTADO (MESES)	REDONDEADO A POTENCIA DE DOS (MESES)	CLASIFICACIÓN ABC MULTICRITERIO	N° DE PEDIDOS AL AÑO	
PARCHE SCHRADER SBR1	SCHRADER	239546	S/.	0.13	21883	1.10	0.144	33219	1.66	2	A	6
PARCHE SCHRADER SBMC2	SCHRADER	20868	S/.	1.80	1736	1.00	0.196	2894	1.66	2	A	6
PARCHE SCHRADER SBRO	SCHRADER	136976	S/.	0.10	18867	1.65	0.002	18996	1.66	2	A	6
PARCHE SCHRADER SBMC3	SCHRADER	12035	S/.	2.45	1130	1.13	0.130	1669	1.66	2	A	6
PARCHE SCHRADER SBR2	SCHRADER	41559	S/.	0.31	5879	1.70		5879	1.70	2	A	6
PARCHE SCHRADER SBRC10	SCHRADER	15540	S/.	1.60	1589	1.23	0.093	2156	1.66	2	A	6
PARCHE SCHRADER SBF1	SCHRADER	49420	S/.	0.20	8014	1.95		8014	1.95	2	B	6
PARCHE SCHRADER SBF2	SCHRADER	27675	S/.	0.46	3955	1.71		3955	1.71	2	B	6
PARCHE SCHRADER SBF3	SCHRADER	23682	S/.	0.59	3241	1.64	0.003	3285	1.66	2	B	6
PARCHE SCHRADER SBMC4	SCHRADER	7822	S/.	3.50	763	1.17	0.113	1085	1.66	2	B	6
PARCHE SCHRADER SBMC5	SCHRADER	4763	S/.	7.00	421	1.06	0.162	661	1.66	2	B	6
PARCHE SCHRADER SBR3	SCHRADER	31425	S/.	0.35	4831	1.84		4831	1.84	2	B	6
PARCHE SCHRADER SBRB1	SCHRADER	110559	S/.	0.10	17391	1.89		17391	1.89	2	B	6
PARCHE SCHRADER SBMC6	SCHRADER	1448	S/.	14.30	163	1.35	0.059	201	1.66	2	B	6
PARCHE SCHRADER SBR4	SCHRADER	17375	S/.	0.48	3060	2.11		3060	2.11	2	B	6
PARCHE SCHRADER SBRC12	SCHRADER	7728	S/.	3.00	819	1.27	0.079	1072	1.66	2	B	6
PARCHE SCHRADER SBRC14	SCHRADER	5504	S/.	2.90	703	1.53	0.020	764	1.66	2	B	6
PARCHE SCHRADER SBRC40	SCHRADER	1831	S/.	6.20	278	1.82		278	1.82	2	B	6
PARCHE SCHRADER SBR5	SCHRADER	2682	S/.	0.65	1036	4.64		1036	4.64	4	C	3
PARCHE SCHRADER SBRC20	SCHRADER	2763	S/.	2.20	572	2.48		572	2.48	2	C	6

PARCHE REM-00 RUZI	RUZI	170	S/. 0.19	499	35.22	499	35.22	32	C	0.375
PARCHE REM-01 RUZI	RUZI	1976	S/. 0.25	1463	8.88	1463	8.88	8	C	1.5
PARCHE REM-02 RUZI	RUZI	34	S/. 0.26	190	67.06	190	67.06	64	C	0.1875
PARCHE REM-03 RUZI	RUZI	390	S/. 0.26	644	19.82	644	19.82	16	C	0.75
PARCHE REM-04 RUZI	RUZI	848	S/. 0.31	866	12.25	866	12.25	16	C	0.75
PARCHE SCHRADER SBMC7	SCHRADER	436	S/. 21.00	74	2.04	74	2.04	2	C	6
PARCHE SCHRADER SBMC8	SCHRADER	154	S/. 30.60	37	2.88	37	2.88	2	C	6
PARCHE SCHRADER SBMC9	SCHRADER	26	S/. 30.00	16	7.38	16	7.38	8	C	1.5
PARCHE SCHRADER SBR10	SCHRADER	628	S/. 1.98	288	5.50	288	5.50	4	C	3
PARCHE SCHRADER SBR6	SCHRADER	825	S/. 2.04	325	4.73	325	4.73	4	C	3
PARCHE SCHRADER SBR7	SCHRADER	1726	S/. 0.77	763	5.30	763	5.30	4	C	3
PARCHE SCHRADER SBR8	SCHRADER	2037	S/. 1.14	682	4.02	682	4.02	4	C	3
PARCHE SCHRADER SBRB2	SCHRADER	5364	S/. 0.20	2621	5.86	2621	5.86	4	C	3
PARCHE SCHRADER SBRC22	SCHRADER	800	S/. 3.65	239	3.59	239	3.59	4	C	3
PARCHE SCHRADER SBRC24	SCHRADER	135	S/. 3.80	97	8.62	97	8.62	8	C	1.5
PARCHE SCHRADER SBRC42	SCHRADER	894	S/. 10.00	153	2.05	153	2.05	2	C	6
PARCHE SCHRADER SBRC44	SCHRADER	275	S/. 12.50	76	3.32	76	3.32	4	C	3
PARCHE TFMD-02 TIREFIX	TIREFIX	1901	S/. 1.58	571	3.60	571	3.60	4	C	3
PARCHE TFMD-03 TIREFIX	TIREFIX	1110	S/. 2.10	379	4.10	379	4.10	4	C	3
PARCHE TFMD-04 TIREFIX	TIREFIX	186	S/. 3.25	125	8.06	125	8.06	8	C	1.5
PARCHE TFMD-05 TIREFIX	TIREFIX	154	S/. 5.70	86	6.70	86	6.70	8	C	1.5
PARCHE TFRC-110 TIREFIX	TIREFIX	1231	S/. 1.48	476	4.64	476	4.64	4	C	3
PARCHE TFRC-112 TIREFIX	TIREFIX	1034	S/. 2.15	361	4.19	361	4.19	4	C	3
PARCHE TFRC-114 TIREFIX	TIREFIX	1123	S/. 2.55	346	3.70	346	3.70	4	C	3
PARCHE TFRC-120 TIREFIX	TIREFIX	142	S/. 2.70	120	10.14	120	10.14	8	C	1.5

1.000

2.00

Período Base

### Anexo 20.6. Artículos de Puerto Ningbo

PUERTO	NINGBO		
PAÍS	CHINA		
MARCA	EVERWINNER	NINGBO	CLASSIC

COSTO MAYOR	S/. 280.39	
COSTO MENOR		(+) Revisión
EVERWINNER	S/. 19.21	S/. 31.93
NINGBO	S/. 18.65	S/. 31.37
CLASSIC	S/. 18.65	S/. 31.37
COSTO POSESIÓN (%)	21.21%	

COSTO TOTAL PEDIDO	S/. 1,077.63	S/. 1,025.79	S/. 567.54	S/. 648.53
EVERWINNER # Ítems	42	38	15	19
Costo Fijo Mayor	S/. 245.93			
Costo Menor	S/. 14.85			

COSTO TOTAL PEDIDO	S/. 942.28	S/. 857.38	S/. 728.52	S/. 1,085.14
NINGBO/CLASSIC # Ítems	36	31	24	43
Costo Fijo Mayor	S/. 278.44			
Costo Menor	S/. 18.65			

#### EJEMPLO 1

H-H (COMEX)	800
Llamadas	42.63
Gastos fijos (Importación)	235
Agente de carga	125
Agente de aduanas	110
<b>COSTO TOTAL PEDIDO</b>	<b>1077.6</b>

PRODUCTO	MARCA	DEMANDA (ANUAL)	COSTO UNITARIO (S/.)	EOQ	TIEMPO ENTRE REVISIÓN (MESES)	Alpha ( $\alpha$ )	EOQ AJUSTADO	TIEMPO ENTRE REVISIÓN AJUSTADO (MESES)	REDONDEADO A POTENCIA DE DOS (MESES)	CLASIFICACIÓN ABC MULTICRITERIO	N° DE PEDIDOS AL AÑO
PARCHE DC110-30 NINGBO	NINGBO	178916	S/. 0.06	29310	1.97	0.209	49626	3.33	3	A	4
PARCHE M-48 EVERWINNER	EVERWINNER	24287	S/. 1.26	2409	1.19	0.777	6737	3.33	3	A	4
PARCHE DC110-40 NINGBO	NINGBO	47015	S/. 0.09	12268	3.13	0.015	13041	3.33	3	B	4
PARCHE DC107-25 NINGBO	NINGBO	17664	S/. 0.02	15138	10.28		15138	10.28	12	C	1
PARCHE DC107-30 NINGBO	NINGBO	30562	S/. 0.04	14940	5.87		14940	5.87	6	C	2
PARCHE DC107-40 NINGBO	NINGBO	11358	S/. 0.04	9661	10.21		9661	10.21	12	C	1
PARCHE DC110-52 NINGBO	NINGBO	13445	S/. 0.14	5248	4.68		5248	4.68	6	C	2
PARCHE CP-501 DE LONA NINGBO	NINGBO	1702	S/. 1.06	690	4.86		690	4.86	6	C	2
PARCHE CP-502 DE LONA NINGBO	NINGBO	539	S/. 1.50	327	7.28		327	7.28	6	C	2
PARCHE CP-503 DE LONA NINGBO	NINGBO	300	S/. 1.56	239	9.56		239	9.56	12	C	1
PARCHE DC107-52 NINGBO	NINGBO	4391	S/. 0.09	3774	10.31		3774	10.31	12	C	1
PARCHE DC107-65 NINGBO	NINGBO	3414	S/. 0.17	2431	8.54		2431	8.54	6	C	2
PARCHE DC107-75 NINGBO	NINGBO	4025	S/. 0.23	2301	6.86		2301	6.86	6	C	2
PARCHE DC108-34X24 NINGBO	NINGBO	440	S/. 1.44	301	8.21		301	8.21	6	C	2
PARCHE DC108-72X40 NINGBO	NINGBO	254	S/. 1.46	227	10.72		227	10.72	12	C	1
PARCHE DC110-75 NINGBO	NINGBO	1839	S/. 0.26	1456	9.50		1456	9.50	12	C	1
PARCHE CP-401 CLASSIC	CLASSIC	29376	S/. 0.05	12685	5.18		12685	5.18	6	C	2
PARCHE CP-201 CLASSIC	CLASSIC	1196	S/. 0.02	3922	39.35		3922	39.35	48	C	0.25
PARCHE CP-202 CLASSIC	CLASSIC	6805	S/. 0.04	7094	12.51		7094	12.51	12	C	1
PARCHE CP-203 CLASSIC	CLASSIC	4275	S/. 0.06	4670	13.11		4670	13.11	12	C	1
PARCHE CP-402 CLASSIC	CLASSIC	7749	S/. 0.08	5320	8.24		5320	8.24	6	C	2
PARCHE CP-403 CLASSIC	CLASSIC	4228	S/. 0.13	3145	8.93		3145	8.93	6	C	2
PARCHE CP-404 CLASSIC	CLASSIC	1833	S/. 0.23	1553	10.17		1553	10.17	12	C	1
PARCHE EWQ-09 CLASSIC	CLASSIC	6174	S/. 0.11	4075	7.92		4075	7.92	6	C	2

1.000

3.00

Período Base



Anexo 20.7. Artículos de Puerto Busan

PUERTO	BUSAN
PAÍS	COREA DEL SUR
MARCA	SUPER BULL PREMIUM

COSTO MAYOR	S/.	263.39	
COSTO MENOR			(+) Revisión
SUPER BULL PREMIUM	S/.	18.91	S/.
COSTO POSESIÓN (%)		21.21%	

COSTO TOTAL PEDIDO	S/.	870.54	S/.	730.76	S/.	645.80	S/.	565.19
SUPER BULL PREMIUM		32		25		20		16
Costo Fijo Mayor	S/.	263.39						
Costo Menor	S/.	18.91						

EJEMPLO 1

H-H (COMEX)	600
Llamadas	35.54
Gastos fijos (Importación)	235
Agente de carga	125
Agente de aduanas	110
<b>COSTO TOTAL PEDIDO</b>	<b>870.54</b>

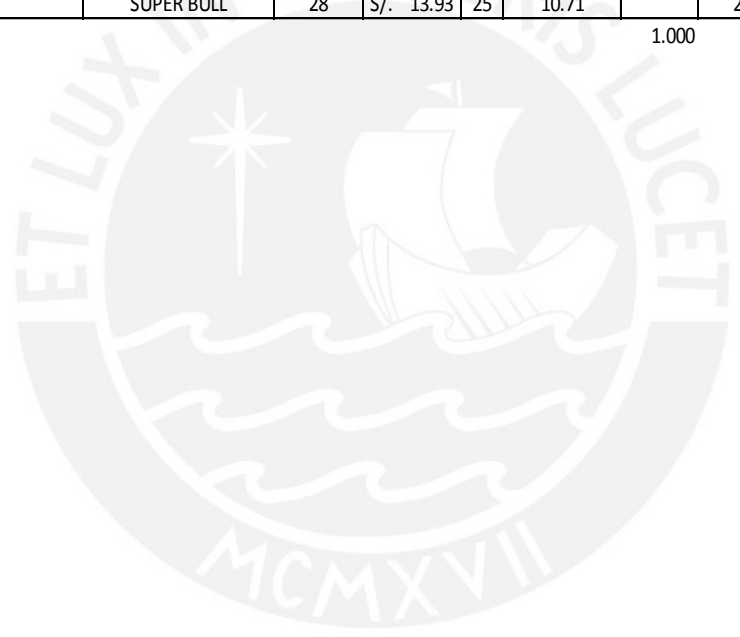
PRODUCTO	MARCA	DEMANDA (ANUAL)	COSTO UNITARIO (S/.)	EOQ	TIEMPO ENTRE REVISIÓN (MESES)	Alpha (α)	EOQ AJUSTADO	TIEMPO ENTRE REVISIÓN AJUSTADO (MESES)	REDONDEADO A POTENCIA DE DOS (MESES)	CLASIFICACIÓN ABC MULTICRITERIO	N° DE PEDIDOS AL AÑO	
CAMARA FR-13 SUPER BULL PREMIUN TR-13	SUPER BULL PREMIUN	13367	S/.	9.90	635	0.57	0.242	1102	0.99	1	A	12
CAMARA 700-16 SUPER BULL PREMIUN TR177A	SUPER BULL PREMIUN	5752	S/.	18.80	303	0.63	0.175	474	0.99	1	A	12
CAMARA 750-16 SUPER BULL PREMIUN TR177A	SUPER BULL PREMIUN	6583	S/.	19.90	315	0.57	0.238	543	0.99	1	A	12
CAMARA 825-16 SUPER BULL PREMIUN TR177A	SUPER BULL PREMIUN	2409	S/.	26.80	164	0.82	0.056	199	0.99	1	A	12
CAMARA ER-12 SUPER BULL PREMIUN TR-13	SUPER BULL PREMIUN	8500	S/.	8.15	558	0.79	0.069	701	0.99	1	A	12
CAMARA FR-14 SUPER BULL PREMIUN TR-13	SUPER BULL PREMIUN	8645	S/.	10.50	496	0.69	0.128	713	0.99	1	A	12
CAMARA KR-15 SUPER BULL PREMIUN TR-13	SUPER BULL PREMIUN	3515	S/.	15.30	262	0.89	0.027	290	0.99	1	A	12
CAMARA KR-16 SUPER BULL PREMIUN TR-13	SUPER BULL PREMIUN	4303	S/.	15.70	286	0.80	0.065	355	0.99	1	A	12
CAMARA 1200R20 SUPER BULL PREMIUN TR78A	SUPER BULL PREMIUN	489	S/.	56.00	52	1.28		52	1.28	1	B	12
CAMARA 700-15 SUPER BULL PREMIUN TR177A	SUPER BULL PREMIUN	929	S/.	18.15	124	1.60		124	1.60	2	B	6
CAMARA KR-14 SUPER BULL PREMIUN TR-13	SUPER BULL PREMIUN	1369	S/.	13.50	174	1.53		174	1.53	2	B	6
CAMARA 1100-20 SUPER BULL PREMIUN TR78A	SUPER BULL PREMIUN	415	S/.	51.20	50	1.45		50	1.45	1	C	12
CAMARA 1100R20 SUPER BULL PREMIUN TR78A	SUPER BULL PREMIUN	272	S/.	52.50	40	1.76		40	1.76	2	C	6
CAMARA 400-8 SUPER BULL PREMIUN TR87C	SUPER BULL PREMIUN	2327	S/.	7.70	301	1.55		301	1.55	2	C	6
CAMARA 650-16 SUPER BULL PREMIUN TR177A	SUPER BULL PREMIUN	614	S/.	17.70	102	1.99		102	1.99	2	C	6
CAMARA ER-13 SUPER BULL PREMIUN TR13	SUPER BULL PREMIUN	1207	S/.	9.00	200	1.99		200	1.99	2	C	6
CAMARA 1000-20 SUPER BULL PREMIUN TR78A	SUPER BULL PREMIUN	192	S/.	42.60	37	2.31		37	2.31	2	C	6
CAMARA 1000R20 SUPER BULL PREMIUN TR78A	SUPER BULL PREMIUN	139	S/.	46.50	30	2.59		30	2.59	2	C	6
CAMARA 1100R22 SUPER BULL PREMIUN TR78A	SUPER BULL PREMIUN	14	S/.	54.20	9	7.71		9	7.71	8	C	1.5
CAMARA 11L-16 SUPER BULL PREMIUN TR15	SUPER BULL PREMIUN	9	S/.	28.00	10	13.33		10	13.33	16	C	0.75
CAMARA 12.5/80-18 SUPER BULL PREMIUN TR218A	SUPER BULL PREMIUN	40	S/.	40.00	18	5.40		18	5.40	4	C	3
CAMARA 1200-20 SUPER BULL PREMIUN TR78A	SUPER BULL PREMIUN	138	S/.	55.60	28	2.43		28	2.43	2	C	6
CAMARA 1200-24 SUPER BULL PREMIUN TR78A	SUPER BULL PREMIUN	35	S/.	62.00	13	4.46		13	4.46	4	C	3
CAMARA 14.9/13-24 SUPER BULL PREMIUN TR 218A	SUPER BULL PREMIUN	4	S/.	64.00	5	15.00		5	15.00	16	C	0.75
CAMARA 14.9/13-28 SUPER BULL PREMIUN	SUPER BULL PREMIUN	13	S/.	73.50	8	7.38		8	7.38	8	C	1.5

CAMARA 1400-24 TR179A SUPER BULL PREMIUM	SUPER BULL PREMIUN	11	S/. 83.50	7	7.64		7	7.64	8	C	1.5
CAMARA 18.4/15-38 SUPER BULL PREMIUN TR218A	SUPER BULL PREMIUN	4	S/. 137.00	3	9.00		3	9.00	8	C	1.5
CAMARA 19.5-24 SUPER BULL PREMIUN TR218A	SUPER BULL PREMIUN	18	S/. 91.00	8	5.33		8	5.33	4	C	3
CAMARA 20.5-25 SUPER BULL PREMIUN TRJ1175C	SUPER BULL PREMIUN	6	S/. 152.00	4	8.00		4	8.00	8	C	1.5
CAMARA 23.5-25 SUPER BULL PREMIUN TRJ1175C	SUPER BULL PREMIUN	15	S/. 167.00	6	4.80		6	4.80	4	C	3
CAMARA 26.5-25 SUPER BULL PREMIUN TRJ1175C	SUPER BULL PREMIUN	4	S/. 183.00	3	9.00		3	9.00	8	C	1.5
CAMARA 400-8 SUPER BULL PREMIUM TR-13	SUPER BULL PREMIUN	166	S/. 7.70	81	5.86		81	5.86	4	C	3
CAMARA 750-16-R SUPER BULL PREMIUN REFORZADA TR177A	SUPER BULL PREMIUN	166	S/. 19.90	50	3.61		50	3.61	4	C	3
CAMARA 825-20 SUPER BULL PREMIUN TR177A	SUPER BULL PREMIUN	75	S/. 33.00	27	4.32		27	4.32	4	C	3
CAMARA 900-20 SUPER BULL PREMIUN TR175A	SUPER BULL PREMIUN	113	S/. 38.70	30	3.19		30	3.19	4	C	3
CAMARA GR-14 SUPER BULL PREMIUN TR-13	SUPER BULL PREMIUN	641	S/. 12.20	126	2.36		126	2.36	2	C	6
CAMARA KR-15 SUPER BULL TR177A	SUPER BULL	28	S/. 13.93	25	10.71		25	10.71	8	C	1.5

1.000

1.00

Periodo Base



Anexo 20.8. Artículos de Puerto Jakarta

<b>PUERTO</b>	JAKARTA
<b>PAÍS</b>	INDONESIA
<b>MARCA</b>	SWALLOW HUNG-A

<b>COSTO MAYOR</b>	S/. 310.52
<b>COSTO MENOR</b>	(+) Revisión
<b>SWALLOW</b>	S/. 20.88 S/. 33.60
<b>HUNG-A</b>	S/. 21.14 S/. 33.86
<b>COSTO POSESIÓN (%)</b>	21.21%

<b>COSTO TOTAL PEDIDO</b>	S/. 748.33	S/. 769.21	S/. 685.69	S/. 623.05
	SWALLOW	21	22	18
<b>Costo Fijo Mayor</b>	S/. 309.85			
<b>Costo Menor</b>	S/. 20.88			

<b>COSTO TOTAL PEDIDO</b>	S/. 607.14	S/. 670.56	S/. 607.14	S/. 712.84
	HUNG-A	14	17	14
<b>Costo Fijo Mayor</b>	S/. 311.18			
<b>Costo Menor</b>	S/. 21.14			

EJEMPLO 1

H-H (COMEX)	400
Llamadas	83.33
Gastos fijos (Importación)	265
Agente de carga	140
Agente de aduanas	125
<b>COSTO TOTAL PEDIDO</b>	<b>748.33</b>

PRODUCTO	MARCA	DEMANDA (ANUAL)	COSTO UNITARIO (S/.)	EOQ	TIEMPO ENTRE REVISIÓN (MESES)	Alpha ( $\alpha$ )	EOQ AJUSTADO	TIEMPO ENTRE REVISIÓN AJUSTADO (MESES)	REDONDEADO A POTENCIA DE DOS (MESES)	CLASIFICACIÓN ABC MULTICRITERIO	N° DE PEDIDOS AL AÑO
CAMARA 300-18 SWALLOW TR4	SWALLOW	11198	S/. 6.50	739	0.79	0.611	1905	2.04	2	A	6
CAMARA 300-18 HUNG-A TR-4	HUNG-A	4334	S/. 7.40	433	1.20	0.208	738	2.04	2	B	6
CAMARA 400-8 SWALLOW TR87C	SWALLOW	3933	S/. 5.90	460	1.40	0.121	669	2.04	2	B	6
CAMARA 300-17 SWALLOW TR4	SWALLOW	1978	S/. 6.30	316	1.92	0.015	337	2.04	2	B	6
CAMARA 410-18 SWALLOW TR-4	SWALLOW	1798	S/. 8.66	257	1.72	0.046	306	2.04	2	B	6
CAMARA 275-18 SWALLOW TR4	SWALLOW	1599	S/. 6.10	289	2.17		289	2.17	2	C	6
CAMARA 300-21 SWALLOW TR-4	SWALLOW	762	S/. 7.20	184	2.90		184	2.9	2	C	6
CAMARA 300-17 HUNG-A TR-4	HUNG-A	441	S/. 7.00	142	3.86		142	3.86	4	C	3
CAMARA 350-8 SWALLOW TR87C	SWALLOW	215	S/. 5.30	114	6.36		114	6.36	8	C	1.5
						1.000		2.00			

Periodo Base

**Anexo 20.9. Resultados de la aplicación del SRC**

Puerto	Marcas	Costo Mayor	Costo menor	N° de ítems
<b>BUSAN</b>	SUPER BULL	S/. 263.39	S/. 31.63	1
	SUPER BULL PREMIUN			36
<b>JAKARTA</b>	HUNG-A	S/. 310.52	S/. 33.86	2
	SWALLOW		S/. 33.60	7
<b>NACIONAL</b>	CAMELL	S/. 15.10	S/. 17.58	4
	COLD PATCH		S/. 17.58	4
	CONCORD PLUS		S/. 17.58	9
	CST		S/. 17.58	3
	DIAMOND		S/. 17.58	3
	DURO		S/. 17.58	1
	FORTUNE		S/. 17.58	1
	GOSTONE		S/. 17.58	3
	KENDA		S/. 17.58	6
	MARELY		S/. 17.58	1
	NEXEN		S/. 17.58	6
	PANESA		S/. 17.58	1
	TAIWAN		S/. 17.58	2
	TRULPER		S/. 17.58	1
VIPAL	S/. 17.58	35		
<b>NHAVA SHEVA</b>	ARL	S/. 295.75	S/. 38.68	6
<b>NINGBO</b>	CLASSIC	S/. 280.39	S/. 31.37	8
	EVERWINNER		S/. 31.93	1
	NINGBO		S/. 31.37	15
<b>QUINGDAO</b>	S & M	S/. 289.15	S/. 32.21	6
<b>SANTOS</b>	RUZI	S/. 249.95	S/. 28.69	5
	SCHRADER		S/. 27.56	32
	TIREFIX		S/. 28.69	8

PRODUCTO	CLASIFICACIÓN ABC MULTICRITERIO	MARCA	PUERTO	TIEMPO ENTRE REVISIÓN DEFINITIVO (MESES)	N° DE PEDIDOS AL AÑO	DEMANDA ANUAL	TAMAÑO DE LOTE PROMEDIO (D*R)
PARCHE DC110-30 NINGBO	A	NINGBO	NINGBO	3	4	178916	44729.00
PARCHE M-48 EVERWINNER	A	EVERWINNER	NINGBO	3	4	24287	6071.75
PARCHE DC110-40 NINGBO	B	NINGBO	NINGBO	3	4	47015	11753.75
PARCHE DC107-25 NINGBO	C	NINGBO	NINGBO	12	1	17664	17664.00
PARCHE DC107-30 NINGBO	C	NINGBO	NINGBO	6	2	30562	15281.00
PARCHE DC107-40 NINGBO	C	NINGBO	NINGBO	12	1	11358	11358.00
PARCHE DC110-52 NINGBO	C	NINGBO	NINGBO	6	2	13445	6722.50
PARCHE CP-501 DE LONA NINGBO	C	NINGBO	NINGBO	6	2	1702	851.00
PARCHE CP-502 DE LONA NINGBO	C	NINGBO	NINGBO	6	2	539	269.50
PARCHE CP-503 DE LONA NINGBO	C	NINGBO	NINGBO	12	1	300	300.00
PARCHE DC107-52 NINGBO	C	NINGBO	NINGBO	12	1	4391	4391.00
PARCHE DC107-65 NINGBO	C	NINGBO	NINGBO	6	2	3414	1707.00
PARCHE DC107-75 NINGBO	C	NINGBO	NINGBO	6	2	4025	2012.50
PARCHE DC108-34X24 NINGBO	C	NINGBO	NINGBO	6	2	440	220.00
PARCHE DC108-72X40 NINGBO	C	NINGBO	NINGBO	12	1	254	254.00
PARCHE DC110-75 NINGBO	C	NINGBO	NINGBO	12	1	1839	1839.00
PARCHE CP-401 CLASSIC	C	CLASSIC	NINGBO	6	2	29376	14688.00
PARCHE CP-201 CLASSIC	C	CLASSIC	NINGBO	48	0.25	1196	4784.00
PARCHE CP-202 CLASSIC	C	CLASSIC	NINGBO	12	1	6805	6805.00
PARCHE CP-203 CLASSIC	C	CLASSIC	NINGBO	12	1	4275	4275.00
PARCHE CP-402 CLASSIC	C	CLASSIC	NINGBO	6	2	7749	3874.50
PARCHE CP-403 CLASSIC	C	CLASSIC	NINGBO	6	2	4228	2114.00
PARCHE CP-404 CLASSIC	C	CLASSIC	NINGBO	12	1	1833	1833.00
PARCHE EWQ-09 CLASSIC	C	CLASSIC	NINGBO	6	2	6174	3087.00
PARCHE SCHRADER SBR1	A	SCHRADER	SANTOS	2	6	239546	39924.33
PARCHE SCHRADER SBMC2	A	SCHRADER	SANTOS	2	6	20868	3478.00
PARCHE SCHRADER SBRO	A	SCHRADER	SANTOS	2	6	136976	22829.33
PARCHE SCHRADER SBMC3	A	SCHRADER	SANTOS	2	6	12035	2005.83
PARCHE SCHRADER SBR2	A	SCHRADER	SANTOS	2	6	41559	6926.50
PARCHE SCHRADER SBRC10	A	SCHRADER	SANTOS	2	6	15540	2590.00
PARCHE SCHRADER SBF1	B	SCHRADER	SANTOS	2	6	49420	8236.67
PARCHE SCHRADER SBF2	B	SCHRADER	SANTOS	2	6	27675	4612.50
PARCHE SCHRADER SBF3	B	SCHRADER	SANTOS	2	6	23682	3947.00
PARCHE SCHRADER SBMC4	B	SCHRADER	SANTOS	2	6	7822	1303.67
PARCHE SCHRADER SBMC5	B	SCHRADER	SANTOS	2	6	4763	793.83
PARCHE SCHRADER SBR3	B	SCHRADER	SANTOS	2	6	31425	5237.50
PARCHE SCHRADER SBRB1	B	SCHRADER	SANTOS	2	6	110559	18426.50
PARCHE SCHRADER SBMC6	B	SCHRADER	SANTOS	2	6	1448	241.33
PARCHE SCHRADER SBR4	B	SCHRADER	SANTOS	2	6	17375	2895.83
PARCHE SCHRADER SBRC12	B	SCHRADER	SANTOS	2	6	7728	1288.00

PARCHE SCHRADER SBRC14	B	SCHRADER	SANTOS	2	6	5504	917.33
PARCHE SCHRADER SBRC40	B	SCHRADER	SANTOS	2	6	1831	305.17
PARCHE SCHRADER SBR5	C	SCHRADER	SANTOS	4	3	2682	894.00
PARCHE SCHRADER SBRC20	C	SCHRADER	SANTOS	2	6	2763	460.50
PARCHE REM-00 RUZI	C	RUZI	SANTOS	32	0.375	170	453.33
PARCHE REM-01 RUZI	C	RUZI	SANTOS	8	1.5	1976	1317.33
PARCHE REM-02 RUZI	C	RUZI	SANTOS	64	0.1875	34	181.33
PARCHE REM-03 RUZI	C	RUZI	SANTOS	16	0.75	390	520.00
PARCHE REM-04 RUZI	C	RUZI	SANTOS	16	0.75	848	1130.67
PARCHE SCHRADER SBMC7	C	SCHRADER	SANTOS	2	6	436	72.67
PARCHE SCHRADER SBMC8	C	SCHRADER	SANTOS	2	6	154	25.67
PARCHE SCHRADER SBMC9	C	SCHRADER	SANTOS	8	1.5	26	17.33
PARCHE SCHRADER SBR10	C	SCHRADER	SANTOS	4	3	628	209.33
PARCHE SCHRADER SBR6	C	SCHRADER	SANTOS	4	3	825	275.00
PARCHE SCHRADER SBR7	C	SCHRADER	SANTOS	4	3	1726	575.33
PARCHE SCHRADER SBR8	C	SCHRADER	SANTOS	4	3	2037	679.00
PARCHE SCHRADER SBRB2	C	SCHRADER	SANTOS	4	3	5364	1788.00
PARCHE SCHRADER SBRC22	C	SCHRADER	SANTOS	4	3	800	266.67
PARCHE SCHRADER SBRC24	C	SCHRADER	SANTOS	8	1.5	135	90.00
PARCHE SCHRADER SBRC42	C	SCHRADER	SANTOS	2	6	894	149.00
PARCHE SCHRADER SBRC44	C	SCHRADER	SANTOS	4	3	275	91.67
PARCHE TFMD-02 TIREFIX	C	TIREFIX	SANTOS	4	3	1901	633.67
PARCHE TFMD-03 TIREFIX	C	TIREFIX	SANTOS	4	3	1110	370.00
PARCHE TFMD-04 TIREFIX	C	TIREFIX	SANTOS	8	1.5	186	124.00
PARCHE TFMD-05 TIREFIX	C	TIREFIX	SANTOS	8	1.5	154	102.67
PARCHE TFRC-110 TIREFIX	C	TIREFIX	SANTOS	4	3	1231	410.33
PARCHE TFRC-112 TIREFIX	C	TIREFIX	SANTOS	4	3	1034	344.67
PARCHE TFRC-114 TIREFIX	C	TIREFIX	SANTOS	4	3	1123	374.33
PARCHE TFRC-120 TIREFIX	C	TIREFIX	SANTOS	8	1.5	142	94.67
CAMARA FR-13 SUPER BULL PREMIUN TR-13	A	SUPER BULL PREMIUN	BUSAN	1	12	13367	1113.92
CAMARA 700-16 SUPER BULL PREMIUN TR177A	A	SUPER BULL PREMIUN	BUSAN	1	12	5752	479.33
CAMARA 750-16 SUPER BULL PREMIUN TR177A	A	SUPER BULL PREMIUN	BUSAN	1	12	6583	548.58
CAMARA 825-16 SUPER BULL PREMIUN TR177A	A	SUPER BULL PREMIUN	BUSAN	1	12	2409	200.75
CAMARA ER-12 SUPER BULL PREMIUN TR-13	A	SUPER BULL PREMIUN	BUSAN	1	12	8500	708.33
CAMARA FR-14 SUPER BULL PREMIUN TR-13	A	SUPER BULL PREMIUN	BUSAN	1	12	8645	720.42
CAMARA KR-15 SUPER BULL PREMIUN TR-13	A	SUPER BULL PREMIUN	BUSAN	1	12	3515	292.92
CAMARA KR-16 SUPER BULL PREMIUN TR-13	A	SUPER BULL PREMIUN	BUSAN	1	12	4303	358.58
CAMARA 1200R20 SUPER BULL PREMIUN TR78A	B	SUPER BULL PREMIUN	BUSAN	1	12	489	40.75
CAMARA 700-15 SUPER BULL PREMIUN TR177A	B	SUPER BULL PREMIUN	BUSAN	2	6	929	154.83
CAMARA KR-14 SUPER BULL PREMIUN TR-13	B	SUPER BULL PREMIUN	BUSAN	2	6	1369	228.17
CAMARA 1100-20 SUPER BULL PREMIUN TR78A	C	SUPER BULL PREMIUN	BUSAN	1	12	415	34.58
CAMARA 1100R20 SUPER BULL PREMIUN TR78A	C	SUPER BULL PREMIUN	BUSAN	2	6	272	45.33

CAMARA 400-8 SUPER BULL PREMIUN TR87C	C	SUPER BULL PREMIUN	BUSAN	2	6	2327	387.83
CAMARA 650-16 SUPER BULL PREMIUN TR177A	C	SUPER BULL PREMIUN	BUSAN	2	6	614	102.33
CAMARA ER-13 SUPER BULL PREMIUN TR13	C	SUPER BULL PREMIUN	BUSAN	2	6	1207	201.17
CAMARA 1000-20 SUPER BULL PREMIUN TR78A	C	SUPER BULL PREMIUN	BUSAN	2	6	192	32.00
CAMARA 1000R20 SUPER BULL PREMIUN TR78A	C	SUPER BULL PREMIUN	BUSAN	2	6	139	23.17
CAMARA 1100R22 SUPER BULL PREMIUN TR78A	C	SUPER BULL PREMIUN	BUSAN	8	1.5	14	9.33
CAMARA 11L-16 SUPER BULL PREMIUN TR15	C	SUPER BULL PREMIUN	BUSAN	16	0.75	9	12.00
CAMARA 12.5/80-18 SUPER BULL PREMIUN TR218A	C	SUPER BULL PREMIUN	BUSAN	4	3	40	13.33
CAMARA 1200-20 SUPER BULL PREMIUN TR78A	C	SUPER BULL PREMIUN	BUSAN	2	6	138	23.00
CAMARA 1200-24 SUPER BULL PREMIUN TR78A	C	SUPER BULL PREMIUN	BUSAN	4	3	35	11.67
CAMARA 14.9/13-24 SUPER BULL PREMIUN TR 218A	C	SUPER BULL PREMIUN	BUSAN	16	0.75	4	5.33
CAMARA 14.9/13-28 SUPER BULL PREMIUN	C	SUPER BULL PREMIUN	BUSAN	8	1.5	13	8.67
CAMARA 1400-24 TR179A SUPER BULL PREMIUM	C	SUPER BULL PREMIUN	BUSAN	8	1.5	11	7.33
CAMARA 18.4/15-38 SUPER BULL PREMIUN TR218A	C	SUPER BULL PREMIUN	BUSAN	8	1.5	4	2.67
CAMARA 19.5-24 SUPER BULL PREMIUM TR218A	C	SUPER BULL PREMIUN	BUSAN	4	3	18	6.00
CAMARA 20.5-25 SUPER BULL PREMIUN TRJ1175C	C	SUPER BULL PREMIUN	BUSAN	8	1.5	6	4.00
CAMARA 23.5-25 SUPER BULL PREMIUN TRJ1175C	C	SUPER BULL PREMIUN	BUSAN	4	3	15	5.00
CAMARA 26.5-25 SUPER BULL PREMIUN TRJ1175C	C	SUPER BULL PREMIUN	BUSAN	8	1.5	4	2.67
CAMARA 400-8 SUPER BULL PREMIUM TR-13	C	SUPER BULL PREMIUN	BUSAN	4	3	166	55.33
CAMARA 750-16-R SUPER BULL PREMIUN REFORZADA TR177A	C	SUPER BULL PREMIUN	BUSAN	4	3	166	55.33
CAMARA 825-20 SUPER BULL PREMIUN TR177A	C	SUPER BULL PREMIUN	BUSAN	4	3	75	25.00
CAMARA 900-20 SUPER BULL PREMIUN TR175A	C	SUPER BULL PREMIUN	BUSAN	4	3	113	37.67
CAMARA GR-14 SUPER BULL PREMIUN TR-13	C	SUPER BULL PREMIUN	BUSAN	2	6	641	106.83
CAMARA KR-15 SUPER BULL TR177A	C	SUPER BULL	BUSAN	8	1.5	28	18.67
CAMARA 400-8ARL TR 87C	C	ARL	NHAVA SHEVA	5	2.4	987	411.25
CAMARA 1100-20ARL TR78A	C	ARL	NHAVA SHEVA	5	2.4	180	75.00
CAMARA 1200-20ARL TR78A	C	ARL	NHAVA SHEVA	5	2.4	120	50.00
CAMARA 300-18ARL TR-4	C	ARL	NHAVA SHEVA	5	2.4	1145	477.08
CAMARA FR12 ARL	C	ARL	NHAVA SHEVA	5	2.4	374	155.83
CAMARA FR13 ARL	C	ARL	NHAVA SHEVA	5	2.4	282	117.50
CAMARA 300-18 SWALLOW TR4	A	SWALLOW	JAKARTA	2	6	11198	1866.33
CAMARA 300-18 HUNG-A TR-4	B	HUNG-A	JAKARTA	2	6	4334	722.33
CAMARA 400-8 SWALLOW TR87C	B	SWALLOW	JAKARTA	2	6	3933	655.50
CAMARA 300-17 SWALLOW TR4	B	SWALLOW	JAKARTA	2	6	1978	329.67
CAMARA 410-18 SWALLOW TR-4	B	SWALLOW	JAKARTA	2	6	1798	299.67
CAMARA 275-18 SWALLOW TR4	C	SWALLOW	JAKARTA	2	6	1599	266.50
CAMARA 300-21 SWALLOW TR-4	C	SWALLOW	JAKARTA	2	6	762	127.00
CAMARA 300-17 HUNG-A TR-4	C	HUNG-A	JAKARTA	4	3	441	147.00
CAMARA 350-8 SWALLOW TR87C	C	SWALLOW	JAKARTA	8	1.5	215	143.33
CAMARA 300-18 S & M TR-4	A	S & M	QUINGDAO	3	4	11024	2756.00
CAMARA 275-18 S & M TR-4	C	S & M	QUINGDAO	6	2	177	88.50
CAMARA 300-17 S & M TR-4	C	S & M	QUINGDAO	6	2	410	205.00

CAMARA 350-8 S & M TR87C	C	S & M	QUINGDAO	12	1	145	145.00
CAMARA 400-8 S & M TR87C	C	S & M	QUINGDAO	3	4	1122	280.50
CAMARA 410-18 S & M TR-4	C	S & M	QUINGDAO	6	2	170	85.00
PARCHE VIPAL R-01	A	VIPAL	NACIONAL	1	12	213104	17758.67
PARCHE VIPAL VD1	A	VIPAL	NACIONAL	1	12	40335	3361.25
PARCHE VIPAL R-00	A	VIPAL	NACIONAL	1	12	149178	12431.50
PARCHE VIPAL VD2	A	VIPAL	NACIONAL	1	12	14244	1187.00
CAMARA 300-18 KENDA TR-4	B	KENDA	NACIONAL	1	12	3425	285.42
PARCHE VIPAL R-02	B	VIPAL	NACIONAL	1	12	38871	3239.25
PARCHE VIPAL R-03	B	VIPAL	NACIONAL	1	12	22533	1877.75
PARCHE VIPAL R-04	B	VIPAL	NACIONAL	1	12	20921	1743.42
PARCHE VIPAL RBM-01	B	VIPAL	NACIONAL	2	6	57585	9597.50
PARCHE COLD PATCH L-24	B	COLD PATCH	NACIONAL	1	12	6776	564.67
PARCHE VIPAL RAC10	B	VIPAL	NACIONAL	1	12	7737	644.75
PARCHE VIPAL VD3	B	VIPAL	NACIONAL	1	12	6163	513.58
PARCHE VIPAL VD4	B	VIPAL	NACIONAL	1	12	3629	302.42
PARCHE VIPAL VD5	B	VIPAL	NACIONAL	1	12	2974	247.83
PARCHE VIPAL VF-8	B	VIPAL	NACIONAL	1	12	12190	1015.83
PARCHE VIPAL RAC12	C	VIPAL	NACIONAL	1	12	3470	289.17
PARCHE VIPAL RT-3	C	VIPAL	NACIONAL	2	6	14760	2460.00
PARCHE VIPAL VD6	C	VIPAL	NACIONAL	1	12	1114	92.83
CAMARA 1100-20 CONCORD PLUS TR78A	C	CONCORD PLUS	NACIONAL	4	3	29	9.67
CAMARA 1200-20 CONCORD PLUS	C	CONCORD PLUS	NACIONAL	4	3	51	17.00
CAMARA 20.8 X 38 NEXEN TR218A	C	NEXEN	NACIONAL	4	3	5	1.67
CAMARA 275/300-17 GOSTONE TR 4	C	GOSTONE	NACIONAL	4	3	238	79.33
CAMARA 275/300-17 FORTUNE TR-4	C	FORTUNE	NACIONAL	8	1.5	68	45.33
CAMARA 275-18 DURO TR-4	C	DURO	NACIONAL	4	3	74	24.67
CAMARA 275-18 KENDA TR-4	C	KENDA	NACIONAL	8	1.5	21	14.00
CAMARA 300-17 KENDA TR-4	C	KENDA	NACIONAL	2	6	338	56.33
CAMARA 300-21 KENDA TR-4	C	KENDA	NACIONAL	8	1.5	36	24.00
CAMARA 400-8 GOSTONE TR 87C	C	GOSTONE	NACIONAL	2	6	1635	272.50
CAMARA 400-8 KENDA TR87C	C	KENDA	NACIONAL	2	6	863	143.83
CAMARA 400-8 TRULPER TR 87C	C	TRULPER	NACIONAL	4	3	286	95.33
CAMARA 400-8M MARELY	C	MARELY	NACIONAL	16	0.75	15	20.00
CAMARA 410-18 GOSTONE	C	GOSTONE	NACIONAL	8	1.5	39	26.00
CAMARA 410-18 KENDA TR-4	C	KENDA	NACIONAL	4	3	84	28.00
CAMARA 700-15 CAMEL	C	CAMELL	NACIONAL	4	3	108	36.00
CAMARA 700-15CP CONCORD PLUS TR 177A	C	CONCORD PLUS	NACIONAL	4	3	57	19.00
CAMARA 700-16 CONCORD PLUS	C	CONCORD PLUS	NACIONAL	2	6	146	24.33
CAMARA 700X16 NEXEN	C	NEXEN	NACIONAL	2	6	226	37.67
CAMARA 750-16 CAMELL TR177A	C	CAMELL	NACIONAL	2	6	220	36.67
CAMARA 750-16D DIAMOND	C	DIAMOND	NACIONAL	8	1.5	15	10.00



CAMARA 750X16 NEXEN	C	NEXEN	NACIONAL	2	6	114	19.00
CAMARA 825-20C CONCORD PLUS TR177A	C	CONCORD PLUS	NACIONAL	16	0.75	5	6.67
CAMARA DE BICICLETA 20X1.90/2.125 CST ARO 20	C	CST	NACIONAL	8	1.5	53	35.33
CAMARA DE BICICLETA 24X1.90/2.125 CST ARO 24	C	CST	NACIONAL	8	1.5	69	46.00
CAMARA DE BICICLETA 26X1.90/2.125 CST ARO 26	C	CST	NACIONAL	4	3	204	68.00
CAMARA ER-12 CAMELL TR13	C	CAMELL	NACIONAL	8	1.5	26	17.33
CAMARA ER-12 NEXEN TR-13	C	NEXEN	NACIONAL	4	3	202	67.33
CAMARA ER-12C CONCORD PLUS TR13	C	CONCORD PLUS	NACIONAL	2	6	724	120.67
CAMARA ER-15 DIAMOND TR-13	C	DIAMOND	NACIONAL	4	3	133	44.33
CAMARA FR-13 NEXEN TR13	C	NEXEN	NACIONAL	4	3	85	28.33
CAMARA FR-14CP CONCORD PLUS TR 13	C	CONCORD PLUS	NACIONAL	4	3	110	36.67
CAMARA FR-15 DIAMOND	C	DIAMOND	NACIONAL	2	6	295	49.17
CAMARA GR-13 CONCORD PLUS TR-13	C	CONCORD PLUS	NACIONAL	8	1.5	60	40.00
CAMARA KR-15 NEXEN TR-13	C	NEXEN	NACIONAL	16	0.75	5	6.67
CAMARA KR-16C CAMELL TR13	C	CAMELL	NACIONAL	16	0.75	6	8.00
CAMARA KR-16CP CONCORD PLUS TR177A	C	CONCORD PLUS	NACIONAL	4	3	43	14.33
PARCHE COLD PATCH S-48	C	COLD PATCH	NACIONAL	2	6	5560	926.67
PARCHE COLD PATCH YP3-219	C	COLD PATCH	NACIONAL	32	0.375	938	2501.33
PARCHE COLD PATCH YP3-221	C	COLD PATCH	NACIONAL	16	0.75	2831	3774.67
PARCHE P-2 PANESA	C	PANESA	NACIONAL	8	1.5	4242	2828.00
PARCHE PARA PISCINA #62068 EN STICKERS	C	TAIWAN	NACIONAL	16	0.75	28	37.33
PARCHE PARA PISCINA 59632 NP	C	TAIWAN	NACIONAL	8	1.5	121	80.67
PARCHE VD10 VIPAL	C	VIPAL	NACIONAL	2	6	86	14.33
PARCHE VF-3 VIPAL	C	VIPAL	NACIONAL	4	3	5256	1752.00
PARCHE VIPAL R-05	C	VIPAL	NACIONAL	2	6	3291	548.50
PARCHE VIPAL R-06	C	VIPAL	NACIONAL	4	3	764	254.67
PARCHE VIPAL RAC08	C	VIPAL	NACIONAL	4	3	372	124.00
PARCHE VIPAL RAC14	C	VIPAL	NACIONAL	2	6	2128	354.67
PARCHE VIPAL RAC20	C	VIPAL	NACIONAL	2	6	490	81.67
PARCHE VIPAL RAC22	C	VIPAL	NACIONAL	4	3	334	111.33
PARCHE VIPAL RAC24	C	VIPAL	NACIONAL	16	0.75	19	25.33
PARCHE VIPAL RAC25	C	VIPAL	NACIONAL	4	3	85	28.33
PARCHE VIPAL RAC35	C	VIPAL	NACIONAL	2	6	432	72.00
PARCHE VIPAL RAC40	C	VIPAL	NACIONAL	2	6	280	46.67
PARCHE VIPAL RAC42	C	VIPAL	NACIONAL	8	1.5	49	32.67
PARCHE VIPAL RAC44	C	VIPAL	NACIONAL	8	1.5	42	28.00
PARCHE VIPAL RBM-02	C	VIPAL	NACIONAL	8	1.5	1609	1072.67
PARCHE VIPAL VD7	C	VIPAL	NACIONAL	2	6	284	47.33
PARCHE VIPAL VD8	C	VIPAL	NACIONAL	2	6	132	22.00
PARCHE VIPAL VD9	C	VIPAL	NACIONAL	8	1.5	5	3.33
PARCHE VIPAL VF-6	C	VIPAL	NACIONAL	2	6	5336	889.33

Anexo 21. Tabla K

k	fu(k)	pu(k)	Gu(k)	k	fu(k)	pu(k)	Gu(k)	k	fu(k)	pu(k)	Gu(k)	k	fu(k)	pu(k)	Gu(k)
0.00	0.398942	0.500000	0.398942	1.00	0.241971	0.158655	0.083315	2.00	0.053991	0.022750	0.008491	3.00	0.004432	0.001350	0.000382
0.01	0.398922	0.496011	0.393962	1.01	0.239551	0.156248	0.081741	2.01	0.052919	0.022216	0.008266	3.01	0.004301	0.001306	0.000369
0.02	0.398862	0.492022	0.389022	1.02	0.237132	0.153864	0.080190	2.02	0.051864	0.021692	0.008046	3.02	0.004173	0.001264	0.000356
0.03	0.398763	0.488033	0.384122	1.03	0.234714	0.151505	0.078664	2.03	0.050824	0.021178	0.007832	3.03	0.004049	0.001223	0.000343
0.04	0.398623	0.484047	0.379261	1.04	0.232297	0.149170	0.077160	2.04	0.049800	0.020675	0.007623	3.04	0.003928	0.001183	0.000331
0.05	0.398444	0.480061	0.374441	1.05	0.229882	0.146859	0.075680	2.05	0.048792	0.020182	0.007419	3.05	0.003810	0.001144	0.000320
0.06	0.398225	0.476078	0.369660	1.06	0.227470	0.144572	0.074223	2.06	0.047800	0.019699	0.007219	3.06	0.003695	0.001107	0.000308
0.07	0.397966	0.472097	0.364919	1.07	0.225060	0.142310	0.072789	2.07	0.046823	0.019226	0.007025	3.07	0.003584	0.001070	0.000298
0.08	0.397668	0.468119	0.360218	1.08	0.222653	0.140071	0.071377	2.08	0.045861	0.018763	0.006835	3.08	0.003475	0.001035	0.000287
0.09	0.397330	0.464144	0.355557	1.09	0.220251	0.137857	0.069987	2.09	0.044915	0.018309	0.006649	3.09	0.003370	0.001001	0.000277
0.10	0.396953	0.460172	0.350935	1.10	0.217852	0.135666	0.068619	2.10	0.043984	0.017864	0.006468	3.10	0.003267	0.000968	0.000267
0.11	0.396536	0.456205	0.346353	1.11	0.215458	0.133500	0.067274	2.11	0.043067	0.017429	0.006292	3.11	0.003167	0.000936	0.000258
0.12	0.396080	0.452242	0.341811	1.12	0.213069	0.131357	0.065949	2.12	0.042166	0.017003	0.006120	3.12	0.003070	0.000904	0.000248
0.13	0.395585	0.448283	0.337309	1.13	0.210686	0.129238	0.064646	2.13	0.041280	0.016586	0.005952	3.13	0.002975	0.000874	0.000239
0.14	0.395052	0.444330	0.332846	1.14	0.208308	0.127143	0.063365	2.14	0.040408	0.016177	0.005788	3.14	0.002884	0.000845	0.000231
0.15	0.394479	0.440382	0.328422	1.15	0.205936	0.125072	0.062103	2.15	0.039550	0.015778	0.005628	3.15	0.002794	0.000816	0.000223
0.16	0.393868	0.436441	0.324038	1.16	0.203571	0.123024	0.060863	2.16	0.038707	0.015386	0.005472	3.16	0.002707	0.000789	0.000215
0.17	0.393219	0.432505	0.319693	1.17	0.201214	0.121001	0.059643	2.17	0.037878	0.015003	0.005321	3.17	0.002623	0.000762	0.000207
0.18	0.392531	0.428576	0.315388	1.18	0.198863	0.119000	0.058443	2.18	0.037063	0.014629	0.005172	3.18	0.002541	0.000736	0.000199
0.19	0.391806	0.424655	0.311122	1.19	0.196520	0.117023	0.057263	2.19	0.036262	0.014262	0.005028	3.19	0.002461	0.000711	0.000192
0.20	0.391043	0.420740	0.306895	1.20	0.194186	0.115070	0.056102	2.20	0.035475	0.013903	0.004887	3.20	0.002384	0.000687	0.000185
0.21	0.390242	0.416834	0.302707	1.21	0.191860	0.113140	0.054961	2.21	0.034701	0.013553	0.004750	3.21	0.002309	0.000664	0.000178
0.22	0.389404	0.412936	0.298558	1.22	0.189543	0.111233	0.053840	2.22	0.033941	0.013209	0.004616	3.22	0.002236	0.000641	0.000172
0.23	0.388529	0.409046	0.294448	1.23	0.187235	0.109349	0.052737	2.23	0.033194	0.012874	0.004486	3.23	0.002165	0.000619	0.000165
0.24	0.387617	0.405165	0.290377	1.24	0.184937	0.107488	0.051652	2.24	0.032460	0.012545	0.004359	3.24	0.002096	0.000598	0.000159
0.25	0.386668	0.401294	0.286345	1.25	0.182649	0.105650	0.050587	2.25	0.031740	0.012224	0.004235	3.25	0.002029	0.000577	0.000154
0.26	0.385683	0.397432	0.282351	1.26	0.180371	0.103835	0.049539	2.26	0.031032	0.011911	0.004114	3.26	0.001964	0.000557	0.000148
0.27	0.384663	0.393580	0.278396	1.27	0.178104	0.102042	0.048510	2.27	0.030337	0.011604	0.003996	3.27	0.001901	0.000538	0.000142
0.28	0.383606	0.389739	0.274479	1.28	0.175847	0.100273	0.047498	2.28	0.029655	0.011304	0.003882	3.28	0.001840	0.000519	0.000137
0.29	0.382515	0.385908	0.270601	1.29	0.173602	0.098525	0.046504	2.29	0.028985	0.011011	0.003770	3.29	0.001780	0.000501	0.000132
0.30	0.381388	0.382089	0.266761	1.30	0.171369	0.096801	0.045528	2.30	0.028327	0.010724	0.003662	3.30	0.001723	0.000483	0.000127
0.31	0.380226	0.378281	0.262959	1.31	0.169147	0.095098	0.044568	2.31	0.027682	0.010444	0.003556	3.31	0.001667	0.000467	0.000122

k	fu(k)	pu(k)	Gu(k)	k	fu(k)	pu(k)	Gu(k)	k	fu(k)	pu(k)	Gu(k)	k	fu(k)	pu(k)	Gu(k)
0.32	0.379031	0.374484	0.259196	1.32	0.166937	0.093418	0.043626	2.32	0.027048	0.010170	0.003453	3.32	0.001612	0.000450	0.000118
0.33	0.377801	0.370700	0.255470	1.33	0.164740	0.091759	0.042700	2.33	0.026426	0.009903	0.003352	3.33	0.001560	0.000434	0.000113
0.34	0.376537	0.366928	0.251782	1.34	0.162555	0.090123	0.041791	2.34	0.025817	0.009642	0.003255	3.34	0.001508	0.000419	0.000109
0.35	0.375240	0.363169	0.248131	1.35	0.160383	0.088508	0.040897	2.35	0.025218	0.009387	0.003160	3.35	0.001459	0.000404	0.000105
0.36	0.373911	0.359424	0.244518	1.36	0.158225	0.086915	0.040020	2.36	0.024631	0.009137	0.003067	3.36	0.001411	0.000390	0.000101
0.37	0.372548	0.355691	0.240943	1.37	0.156080	0.085344	0.039159	2.37	0.024056	0.008894	0.002977	3.37	0.001364	0.000376	0.000097
0.38	0.371154	0.351973	0.237404	1.38	0.153948	0.083793	0.038313	2.38	0.023491	0.008656	0.002889	3.38	0.001319	0.000362	0.000093
0.39	0.369728	0.348268	0.233903	1.39	0.151831	0.082264	0.037483	2.39	0.022937	0.008424	0.002804	3.39	0.001275	0.000350	0.000090
0.40	0.368270	0.344578	0.230439	1.40	0.149727	0.080757	0.036668	2.40	0.022395	0.008198	0.002720	3.40	0.001232	0.000337	0.000086
0.41	0.366782	0.340903	0.227011	1.41	0.147639	0.079270	0.035868	2.41	0.021862	0.007976	0.002640	3.41	0.001191	0.000325	0.000083
0.42	0.365263	0.337243	0.223621	1.42	0.145564	0.077804	0.035083	2.42	0.021341	0.007760	0.002561	3.42	0.001151	0.000313	0.000080
0.43	0.363714	0.333598	0.220267	1.43	0.143505	0.076359	0.034312	2.43	0.020829	0.007549	0.002484	3.43	0.001112	0.000302	0.000077
0.44	0.362135	0.329969	0.216949	1.44	0.141460	0.074934	0.033555	2.44	0.020328	0.007344	0.002410	3.44	0.001075	0.000291	0.000074
0.45	0.360527	0.326355	0.213667	1.45	0.139431	0.073529	0.032813	2.45	0.019837	0.007143	0.002337	3.45	0.001038	0.000280	0.000071
0.46	0.358890	0.322758	0.210422	1.46	0.137417	0.072145	0.032085	2.46	0.019356	0.006947	0.002267	3.46	0.001003	0.000270	0.000068
0.47	0.357225	0.319178	0.207212	1.47	0.135418	0.070781	0.031370	2.47	0.018885	0.006756	0.002198	3.47	0.000969	0.000260	0.000066
0.48	0.355533	0.315614	0.204038	1.48	0.133435	0.069437	0.030669	2.48	0.018423	0.006569	0.002132	3.48	0.000936	0.000251	0.000063
0.49	0.353812	0.312067	0.200900	1.49	0.131468	0.068112	0.029981	2.49	0.017971	0.006387	0.002067	3.49	0.000904	0.000242	0.000061
0.50	0.352065	0.308538	0.197797	1.50	0.129518	0.066807	0.029307	2.50	0.017528	0.006210	0.002004	3.50	0.000873	0.000233	0.000058
0.51	0.350292	0.305026	0.194729	1.51	0.127583	0.065522	0.028645	2.51	0.017095	0.006037	0.001943	3.51	0.000843	0.000224	0.000056
0.52	0.348493	0.301532	0.191696	1.52	0.125665	0.064256	0.027996	2.52	0.016670	0.005868	0.001883	3.52	0.000814	0.000216	0.000054
0.53	0.346668	0.298056	0.188698	1.53	0.123763	0.063008	0.027360	2.53	0.016254	0.005703	0.001825	3.53	0.000785	0.000208	0.000052
0.54	0.344818	0.294598	0.185735	1.54	0.121878	0.061780	0.026736	2.54	0.015848	0.005543	0.001769	3.54	0.000758	0.000200	0.000050
0.55	0.342944	0.291160	0.182806	1.55	0.120009	0.060571	0.026124	2.55	0.015449	0.005386	0.001715	3.55	0.000732	0.000193	0.000048
0.56	0.341046	0.287740	0.179912	1.56	0.118157	0.059380	0.025525	2.56	0.015060	0.005234	0.001662	3.56	0.000706	0.000185	0.000046
0.57	0.339124	0.284339	0.177051	1.57	0.116323	0.058208	0.024937	2.57	0.014678	0.005085	0.001610	3.57	0.000681	0.000179	0.000044
0.58	0.337180	0.280957	0.174225	1.58	0.114505	0.057053	0.024360	2.58	0.014305	0.004940	0.001560	3.58	0.000657	0.000172	0.000042
0.59	0.335213	0.277595	0.171432	1.59	0.112704	0.055917	0.023796	2.59	0.013940	0.004799	0.001511	3.59	0.000634	0.000165	0.000041
0.60	0.333225	0.274253	0.168673	1.60	0.110921	0.054799	0.023242	2.60	0.013583	0.004661	0.001464	3.60	0.000612	0.000159	0.000039
0.61	0.331215	0.270931	0.165947	1.61	0.109155	0.053699	0.022700	2.61	0.013234	0.004527	0.001418	3.61	0.000590	0.000153	0.000037
0.62	0.329184	0.267629	0.163254	1.62	0.107406	0.052616	0.022168	2.62	0.012892	0.004397	0.001373	3.62	0.000569	0.000147	0.000036
0.63	0.327133	0.264347	0.160594	1.63	0.105675	0.051551	0.021647	2.63	0.012558	0.004269	0.001330	3.63	0.000549	0.000142	0.000034

k	fu(k)	pu(k)	Gu(k)	k	fu(k)	pu(k)	Gu(k)	k	fu(k)	pu(k)	Gu(k)	k	fu(k)	pu(k)	Gu(k)
0.64	0.325062	0.261086	0.157967	1.64	0.103961	0.050503	0.021137	2.64	0.012232	0.004145	0.001288	3.64	0.000529	0.000136	0.000033
0.65	0.322972	0.257846	0.155372	1.65	0.102265	0.049471	0.020637	2.65	0.011912	0.004025	0.001247	3.65	0.000510	0.000131	0.000032
0.66	0.320864	0.254627	0.152810	1.66	0.100586	0.048457	0.020147	2.66	0.011600	0.003907	0.001207	3.66	0.000492	0.000126	0.000030
0.67	0.318737	0.251429	0.150280	1.67	0.098925	0.047460	0.019668	2.67	0.011295	0.003793	0.001169	3.67	0.000474	0.000121	0.000029
0.68	0.316593	0.248252	0.147781	1.68	0.097282	0.046479	0.019198	2.68	0.010997	0.003681	0.001131	3.68	0.000457	0.000117	0.000028
0.69	0.314432	0.245097	0.145315	1.69	0.095657	0.045514	0.018738	2.69	0.010706	0.003573	0.001095	3.69	0.000441	0.000112	0.000027
0.70	0.312254	0.241964	0.142879	1.70	0.094049	0.044565	0.018288	2.70	0.010421	0.003467	0.001060	3.70	0.000425	0.000108	0.000026
0.71	0.310060	0.238852	0.140475	1.71	0.092459	0.043633	0.017847	2.71	0.010143	0.003364	0.001026	3.71	0.000409	0.000104	0.000025
0.72	0.307851	0.235762	0.138102	1.72	0.090887	0.042716	0.017415	2.72	0.009871	0.003264	0.000993	3.72	0.000394	0.000100	0.000024
0.73	0.305627	0.232695	0.135760	1.73	0.089333	0.041815	0.016993	2.73	0.009606	0.003167	0.000961	3.73	0.000380	0.000096	0.000023
0.74	0.303389	0.229650	0.133448	1.74	0.087796	0.040929	0.016579	2.74	0.009347	0.003072	0.000929	3.74	0.000366	0.000092	0.000022
0.75	0.301137	0.226627	0.131167	1.75	0.086277	0.040059	0.016174	2.75	0.009094	0.002980	0.000899	3.75	0.000353	0.000088	0.000021
0.76	0.298872	0.223627	0.128916	1.76	0.084776	0.039204	0.015778	2.76	0.008846	0.002890	0.000870	3.76	0.000340	0.000085	0.000020
0.77	0.296595	0.220650	0.126694	1.77	0.083293	0.038364	0.015390	2.77	0.008605	0.002803	0.000841	3.77	0.000327	0.000082	0.000019
0.78	0.294305	0.217695	0.124503	1.78	0.081828	0.037538	0.015010	2.78	0.008370	0.002718	0.000814	3.78	0.000315	0.000078	0.000018
0.79	0.292004	0.214764	0.122340	1.79	0.080380	0.036727	0.014639	2.79	0.008140	0.002635	0.000787	3.79	0.000303	0.000075	0.000018
0.80	0.289692	0.211855	0.120207	1.80	0.078950	0.035930	0.014276	2.80	0.007915	0.002555	0.000761	3.80	0.000292	0.000072	0.000017
0.81	0.287369	0.208970	0.118103	1.81	0.077538	0.035148	0.013920	2.81	0.007697	0.002477	0.000736	3.81	0.000281	0.000070	0.000016
0.82	0.285036	0.206108	0.116028	1.82	0.076143	0.034379	0.013573	2.82	0.007483	0.002401	0.000711	3.82	0.000271	0.000067	0.000016
0.83	0.282694	0.203269	0.113981	1.83	0.074766	0.033625	0.013233	2.83	0.007274	0.002327	0.000688	3.83	0.000260	0.000064	0.000015
0.84	0.280344	0.200454	0.111962	1.84	0.073407	0.032884	0.012900	2.84	0.007071	0.002256	0.000665	3.84	0.000251	0.000062	0.000014
0.85	0.277985	0.197662	0.109972	1.85	0.072065	0.032157	0.012575	2.85	0.006873	0.002186	0.000643	3.85	0.000241	0.000059	0.000014
0.86	0.275618	0.194894	0.108009	1.86	0.070740	0.031443	0.012257	2.86	0.006679	0.002118	0.000621	3.86	0.000232	0.000057	0.000013
0.87	0.273244	0.192150	0.106074	1.87	0.069433	0.030742	0.011946	2.87	0.006491	0.002052	0.000600	3.87	0.000223	0.000054	0.000013
0.88	0.270864	0.189430	0.104166	1.88	0.068144	0.030054	0.011642	2.88	0.006307	0.001988	0.000580	3.88	0.000215	0.000052	0.000012
0.89	0.268477	0.186733	0.102285	1.89	0.066871	0.029379	0.011345	2.89	0.006127	0.001926	0.000560	3.89	0.000207	0.000050	0.000011
0.90	0.266085	0.184060	0.100431	1.90	0.065616	0.028716	0.011054	2.90	0.005953	0.001866	0.000541	3.90	0.000199	0.000048	0.000011
0.91	0.263688	0.181411	0.098604	1.91	0.064378	0.028067	0.010771	2.91	0.005782	0.001807	0.000523	3.91	0.000191	0.000046	0.000011
0.92	0.261286	0.178786	0.096803	1.92	0.063157	0.027429	0.010493	2.92	0.005616	0.001750	0.000505	3.92	0.000184	0.000044	0.000010
0.93	0.258881	0.176186	0.095028	1.93	0.061952	0.026803	0.010222	2.93	0.005454	0.001695	0.000488	3.93	0.000177	0.000042	0.000010
0.94	0.256471	0.173609	0.093279	1.94	0.060765	0.026190	0.009957	2.94	0.005296	0.001641	0.000471	3.94	0.000170	0.000041	0.000009
0.95	0.254059	0.171056	0.091556	1.95	0.059595	0.025588	0.009698	2.95	0.005143	0.001589	0.000455	3.95	0.000163	0.000039	0.000009
0.96	0.251644	0.168528	0.089858	1.96	0.058441	0.024998	0.009445	2.96	0.004993	0.001538	0.000440	3.96	0.000157	0.000037	0.000008
0.97	0.249228	0.166023	0.088185	1.97	0.057304	0.024419	0.009198	2.97	0.004847	0.001489	0.000425	3.97	0.000151	0.000036	0.000008
0.98	0.246809	0.163543	0.086537	1.98	0.056183	0.023852	0.008957	2.98	0.004705	0.001441	0.000410	3.98	0.000145	0.000034	0.000008
0.99	0.244390	0.161087	0.084914	1.99	0.055079	0.023295	0.008721	2.99	0.004567	0.001395	0.000396	3.99	0.000139	0.000033	0.000007

## Anexo 22. Curva de Intercambio



Anexo 22.1. Datos para realizar la Curva de Intercambio

PRODUCTO	CLASIFICACIÓN ABC MULTICRITERIO	TIEMPO ENTRE REVISIÓN DEFINITIVO (MESES)	N° DE PEDIDOS AL AÑO	DEMANDA ANUAL	TAMAÑO DE LOTE PROMEDIO (D*R)	DESV. EST. (DEMANDA)	LEAD TIME (AJUSTADO)	DESV. EST. (LEAD TIME)	DESV. EST. TOTAL	COSTO UNITARIO	COSTO UNITARIO DE PÉRDIDA	NIVEL DE SERVICIO OPTIMO
PARCHE DC110-30 NINGBO	A	3	4	178916	44729.00	14308.33	1.23	0.233	29644.32	S/. 0.06	S/. 0.07	0.95
PARCHE M-48 EVERWINNER	A	3	4	24287	6071.75	1231.45	1.23	0.233	2577.35	S/. 1.26	S/. 1.24	0.95
PARCHE SCHRADER SBR1	A	2	6	239546	39924.33	6818.80	0.93	0.233	12573.14	S/. 0.13	S/. 0.12	0.96
PARCHE SCHRADER SBMC2	A	2	6	20868	3478.00	662.37	0.93	0.233	1204.82	S/. 1.80	S/. 0.70	0.91
PARCHE SCHRADER SBRO	A	2	6	136976	22829.33	8582.87	0.93	0.233	14939.21	S/. 0.10	S/. 0.10	0.96
PARCHE SCHRADER SBMC3	A	2	6	12035	2005.83	347.79	0.93	0.233	639.98	S/. 2.45	S/. 1.25	0.93
PARCHE SCHRADER SBR2	A	2	6	41559	6926.50	1329.40	0.93	0.233	2416.01	S/. 0.31	S/. 0.09	0.87
PARCHE SCHRADER SBRC10	A	2	6	15540	2590.00	684.90	0.93	0.233	1211.33	S/. 1.60	S/. 0.70	0.92
CAMARA FR-13 SUPER BULL PREMIUN TR-13	A	1	12	13367	1113.92	173.67	1.23	0.233	367.31	S/. 9.90	S/. 1.60	0.89
CAMARA 700-16 SUPER BULL PREMIUN TR177A	A	1	12	5752	479.33	184.30	1.23	0.233	297.26	S/. 18.80	S/. 4.70	0.93
CAMARA 750-16 SUPER BULL PREMIUN TR177A	A	1	12	6583	548.58	163.82	1.23	0.233	276.27	S/. 19.90	S/. 5.60	0.94
CAMARA 825-16 SUPER BULL PREMIUN TR177A	A	1	12	2409	200.75	368.44	1.23	0.233	552.60	S/. 26.80	S/. 6.20	0.92
CAMARA ER-12 SUPER BULL PREMIUN TR-13	A	1	12	8500	708.33	319.05	1.23	0.233	504.63	S/. 8.15	S/. 1.85	0.92
CAMARA FR-14 SUPER BULL PREMIUN TR-13	A	1	12	8645	720.42	157.07	1.23	0.233	288.71	S/. 10.50	S/. 2.00	0.91
CAMARA KR-15 SUPER BULL PREMIUN TR-13	A	1	12	3515	292.92	95.87	1.23	0.233	158.74	S/. 15.30	S/. 4.20	0.94
CAMARA KR-16 SUPER BULL PREMIUN TR-13	A	1	12	4303	358.58	141.80	1.23	0.233	227.84	S/. 15.70	S/. 5.30	0.95
CAMARA 300-18 SWALLOW TR4	A	2	6	11198	1866.33	424.08	1.53	0.233	826.36	S/. 6.50	S/. 2.50	0.91
CAMARA 300-18 S & M TR-4	A	3	4	11024	2756.00	427.84	1.23	0.233	906.00	S/. 4.30	S/. 2.20	0.90
PARCHE VIPAL R-01	A	1	12	213104	17758.67	4870.85	0.06	0.033	5057.49	S/. 0.26	S/. 0.09	0.95
PARCHE VIPAL VD1	A	1	12	40335	3361.25	880.95	0.06	0.033	915.30	S/. 1.71	S/. 0.39	0.92
PARCHE VIPAL R-00	A	1	12	149178	12431.50	5606.73	0.06	0.033	5796.38	S/. 0.23	S/. 0.05	0.91
PARCHE VIPAL VD2	A	1	12	14244	1187.00	356.71	0.06	0.033	369.96	S/. 2.53	S/. 0.57	0.92
PARCHE DC110-40 NINGBO	B	3	4	47015	11753.75	5538.25	1.23	0.233	11431.60	S/. 0.09	S/. 0.09	0.94
PARCHE SCHRADER SBF1	B	2	6	49420	8236.67	4236.69	0.93	0.233	7319.52	S/. 0.20	S/. 0.10	0.93
PARCHE SCHRADER SBF2	B	2	6	27675	4612.50	781.00	0.93	0.233	1441.80	S/. 0.46	S/. 0.29	0.94
PARCHE SCHRADER SBF3	B	2	6	23682	3947.00	2042.35	0.93	0.233	3528.12	S/. 0.59	S/. 0.36	0.94
PARCHE SCHRADER SBMC4	B	2	6	7822	1303.67	385.36	0.93	0.233	677.30	S/. 3.50	S/. 1.70	0.93
PARCHE SCHRADER SBMC5	B	2	6	4763	793.83	229.13	0.93	0.233	403.21	S/. 7.00	S/. 1.80	0.86
PARCHE SCHRADER SBR3	B	2	6	31425	5237.50	1128.29	0.93	0.233	2026.73	S/. 0.35	S/. 0.30	0.96
PARCHE SCHRADER SBRB1	B	2	6	110559	18426.50	8552.88	0.93	0.233	14805.40	S/. 0.10	S/. 0.09	0.96
PARCHE SCHRADER SBMC6	B	2	6	1448	241.33	62.83	0.93	0.233	111.24	S/. 14.30	S/. 3.20	0.84
PARCHE SCHRADER SBR4	B	2	6	17375	2895.83	714.55	0.93	0.233	1269.59	S/. 0.48	S/. 0.27	0.94
PARCHE SCHRADER SBRC12	B	2	6	7728	1288.00	231.64	0.93	0.233	424.23	S/. 3.00	S/. 0.70	0.85
PARCHE SCHRADER SBRC14	B	2	6	5504	917.33	257.70	0.93	0.233	454.16	S/. 2.90	S/. 1.10	0.91
PARCHE SCHRADER SBRC40	B	2	6	1831	305.17	40.92	0.93	0.233	78.61	S/. 6.20	S/. 3.30	0.93

CAMARA 1200R20 SUPER BULL PREMIUN TR78A	B	1	12	489	40.75	26.16	1.23	0.233	40.24	S/.	56.00	S/.	9.00	0.89
CAMARA 700-15 SUPER BULL PREMIUN TR177A	B	2	6	929	154.83	33.92	1.23	0.233	63.62	S/.	18.15	S/.	4.35	0.85
CAMARA KR-14 SUPER BULL PREMIUN TR-13	B	2	6	1369	228.17	44.17	1.23	0.233	83.76	S/.	13.50	S/.	3.00	0.84
CAMARA 300-18 HUNG-A TR-4	B	2	6	4334	722.33	169.62	1.53	0.233	329.78	S/.	7.40	S/.	2.10	0.88
CAMARA 400-8 SWALLOW TR87C	B	2	6	3933	655.50	135.25	1.53	0.233	265.49	S/.	5.90	S/.	3.10	0.93
CAMARA 300-17 SWALLOW TR4	B	2	6	1978	329.67	116.21	1.53	0.233	221.80	S/.	6.30	S/.	2.70	0.92
CAMARA 410-18 SWALLOW TR-4	B	2	6	1798	299.67	63.59	1.53	0.233	124.53	S/.	8.66	S/.	4.34	0.93
CAMARA 300-18 KENDA TR-4	B	1	12	3425	285.42	111.33	0.06	0.033	115.20	S/.	9.50	S/.	2.00	0.92
PARCHE VIPAL R-02	B	1	12	38871	3239.25	1444.66	0.06	0.033	1493.62	S/.	0.39	S/.	0.11	0.94
PARCHE VIPAL R-03	B	1	12	22533	1877.75	897.16	0.06	0.033	927.25	S/.	0.65	S/.	0.25	0.95
PARCHE VIPAL R-04	B	1	12	20921	1743.42	476.90	0.06	0.033	495.20	S/.	0.81	S/.	0.19	0.93
PARCHE VIPAL RBM-01	B	2	6	57585	9597.50	1941.14	0.06	0.033	2792.90	S/.	0.18	S/.	0.07	0.90
PARCHE COLD PATCH L-24	B	1	12	6776	564.67	435.56	0.06	0.033	449.53	S/.	1.87	S/.	1.13	0.97
PARCHE VIPAL RAC10	B	1	12	7737	644.75	408.10	0.06	0.033	421.37	S/.	2.19	S/.	0.51	0.92
PARCHE VIPAL VD3	B	1	12	6163	513.58	160.00	0.06	0.033	165.88	S/.	3.73	S/.	0.77	0.91
PARCHE VIPAL VD4	B	1	12	3629	302.42	93.45	0.06	0.033	96.89	S/.	5.90	S/.	1.30	0.92
PARCHE VIPAL VD5	B	1	12	2974	247.83	120.02	0.06	0.033	124.04	S/.	9.27	S/.	1.23	0.87
PARCHE VIPAL VF-8	B	1	12	12190	1015.83	678.16	0.06	0.033	700.12	S/.	1.17	S/.	0.13	0.84
PARCHE DC107-25 NINGBO	C	12	1	17664	17664.00	4223.83	3.00	0.233	16362.43	S/.	0.02	S/.	0.05	0.91
PARCHE DC107-30 NINGBO	C	6	2	30562	15281.00	4622.13	3.00	0.233	13879.11	S/.	0.04	S/.	0.06	0.93
PARCHE DC107-40 NINGBO	C	12	1	11358	11358.00	1656.60	3.00	0.233	6419.80	S/.	0.04	S/.	0.11	0.94
PARCHE DC110-52 NINGBO	C	6	2	13445	6722.50	1582.99	3.00	0.233	4756.15	S/.	0.14	S/.	0.13	0.89
PARCHE CP-501 DE LONA NINGBO	C	6	2	1702	851.00	69.20	3.00	0.233	210.21	S/.	1.06	S/.	0.54	0.83
PARCHE CP-502 DE LONA NINGBO	C	6	2	539	269.50	24.97	3.00	0.233	75.65	S/.	1.50	S/.	1.30	0.89
PARCHE CP-503 DE LONA NINGBO	C	12	1	300	300.00	13.58	3.00	0.233	52.91	S/.	1.56	S/.	1.94	0.85
PARCHE DC107-52 NINGBO	C	12	1	4391	4391.00	723.01	3.00	0.233	2801.52	S/.	0.09	S/.	0.16	0.89
PARCHE DC107-65 NINGBO	C	6	2	3414	1707.00	52.79	3.00	0.233	171.73	S/.	0.17	S/.	0.18	0.91
PARCHE DC107-75 NINGBO	C	6	2	4025	2012.50	177.23	3.00	0.233	537.41	S/.	0.23	S/.	0.18	0.88
PARCHE DC108-34X24 NINGBO	C	6	2	440	220.00	32.65	3.00	0.233	98.33	S/.	1.44	S/.	1.06	0.87
PARCHE DC108-72X40 NINGBO	C	12	1	254	254.00	12.01	3.00	0.233	46.79	S/.	1.46	S/.	2.04	0.87
PARCHE DC110-75 NINGBO	C	12	1	1839	1839.00	201.75	3.00	0.233	782.18	S/.	0.26	S/.	0.22	0.80
PARCHE CP-401 CLASSIC	C	6	2	29376	14688.00	2789.50	3.00	0.233	8387.97	S/.	0.05	S/.	0.11	0.95
PARCHE CP-201 CLASSIC	C	48	0.25	1196	4784.00	70.06	3.00	0.233	500.86	S/.	0.02	S/.	0.08	0.80
PARCHE CP-202 CLASSIC	C	12	1	6805	6805.00	469.96	3.00	0.233	1824.94	S/.	0.04	S/.	0.06	0.88
PARCHE CP-203 CLASSIC	C	12	1	4275	4275.00	246.98	3.00	0.233	960.15	S/.	0.06	S/.	0.08	0.87
PARCHE CP-402 CLASSIC	C	6	2	7749	3874.50	659.75	3.00	0.233	1984.98	S/.	0.08	S/.	0.08	0.90
PARCHE CP-403 CLASSIC	C	6	2	4228	2114.00	208.01	3.00	0.233	629.43	S/.	0.13	S/.	0.07	0.85
PARCHE CP-404 CLASSIC	C	12	1	1833	1833.00	201.17	3.00	0.233	779.94	S/.	0.23	S/.	0.28	0.85
PARCHE EQW-09 CLASSIC	C	6	2	6174	3087.00	588.22	3.00	0.233	1768.75	S/.	0.11	S/.	0.08	0.87
PARCHE SCHRADER SBR5	C	4	3	2682	894.00	208.49	1.50	0.233	491.72	S/.	0.65	S/.	1.35	0.97
PARCHE SCHRADER SBRC20	C	2	6	2763	460.50	104.19	1.50	0.233	202.19	S/.	2.20	S/.	1.80	0.96
PARCHE REM-00 RUZI	C	32	0.375	170	453.33	26.76	1.50	0.233	154.93	S/.	0.19	S/.	0.07	0.38
PARCHE REM-01 RUZI	C	8	1.5	1976	1317.33	151.60	1.50	0.233	468.85	S/.	0.25	S/.	0.05	0.59
PARCHE REM-02 RUZI	C	64	0.1875	34	181.33	0.00	1.50	0.233	0.66	S/.	0.26	S/.	0.25	0.46
PARCHE REM-03 RUZI	C	16	0.75	390	520.00	47.96	1.50	0.233	200.75	S/.	0.26	S/.	0.55	0.88

PARCHE REM-04 RUZI	C	16	0.75	848	1130.67	160.95	1.50	0.233	673.52	S/.	0.31	S/.	0.64	0.88
PARCHE SCHRADER SBMC7	C	2	6	436	72.67	14.33	1.50	0.233	28.11	S/.	21.00	S/.	3.50	0.83
PARCHE SCHRADER SBMC8	C	2	6	154	25.67	9.41	1.50	0.233	17.86	S/.	30.60	S/.	12.40	0.92
PARCHE SCHRADER SBMC9	C	8	1.5	26	17.33	2.60	1.50	0.233	8.04	S/.	30.00	S/.	18.00	0.81
PARCHE SCHRADER SBR10	C	4	3	628	209.33	83.81	1.50	0.233	196.92	S/.	1.98	S/.	0.82	0.85
PARCHE SCHRADER SBR6	C	4	3	825	275.00	45.26	1.50	0.233	107.34	S/.	2.04	S/.	0.96	0.87
PARCHE SCHRADER SBR7	C	4	3	1726	575.33	369.50	1.50	0.233	867.21	S/.	0.77	S/.	0.53	0.91
PARCHE SCHRADER SBR8	C	4	3	2037	679.00	487.46	1.50	0.233	1143.89	S/.	1.14	S/.	0.56	0.87
PARCHE SCHRADER SBRB2	C	4	3	5364	1788.00	497.86	1.50	0.233	1172.24	S/.	0.20	S/.	0.30	0.95
PARCHE SCHRADER SBRC22	C	4	3	800	266.67	40.18	1.50	0.233	95.50	S/.	3.65	S/.	1.55	0.86
PARCHE SCHRADER SBRC24	C	8	1.5	135	90.00	8.61	1.50	0.233	26.68	S/.	3.80	S/.	3.70	0.87
PARCHE SCHRADER SBRC42	C	2	6	894	149.00	17.06	1.50	0.233	36.34	S/.	10.00	S/.	3.50	0.91
PARCHE SCHRADER SBRC44	C	4	3	275	91.67	30.71	1.50	0.233	72.21	S/.	12.50	S/.	3.50	0.80
PARCHE TFMD-02 TIREFIX	C	4	3	1901	633.67	295.74	1.50	0.233	694.56	S/.	1.58	S/.	0.72	0.87
PARCHE TFMD-03 TIREFIX	C	4	3	1110	370.00	174.75	1.50	0.233	410.40	S/.	2.10	S/.	1.20	0.89
PARCHE TFMD-04 TIREFIX	C	8	1.5	186	124.00	86.00	1.50	0.233	265.09	S/.	3.25	S/.	1.55	0.77
PARCHE TFMD-05 TIREFIX	C	8	1.5	154	102.67	69.00	1.50	0.233	212.69	S/.	5.70	S/.	2.30	0.74
PARCHE TFRC-110 TIREFIX	C	4	3	1231	410.33	303.50	1.50	0.233	712.17	S/.	1.48	S/.	0.63	0.86
PARCHE TFRC-112 TIREFIX	C	4	3	1034	344.67	171.18	1.50	0.233	401.94	S/.	2.15	S/.	1.05	0.87
PARCHE TFRC-114 TIREFIX	C	4	3	1123	374.33	160.13	1.50	0.233	376.17	S/.	2.55	S/.	1.15	0.86
PARCHE TFRC-120 TIREFIX	C	8	1.5	142	94.67	67.00	1.50	0.233	206.53	S/.	2.70	S/.	1.10	0.74
CAMARA 1100-20 SUPER BULL PREMIUN TR78A	C	1	12	415	34.58	11.46	2.00	0.233	21.43	S/.	51.20	S/.	6.80	0.88
CAMARA 1100R20 SUPER BULL PREMIUN TR78A	C	2	6	272	45.33	18.47	2.00	0.233	37.32	S/.	52.50	S/.	9.50	0.84
CAMARA 400-8 SUPER BULL PREMIUN TR87C	C	2	6	2327	387.83	149.83	2.00	0.233	303.06	S/.	7.70	S/.	1.30	0.83
CAMARA 650-16 SUPER BULL PREMIUN TR177A	C	2	6	614	102.33	24.77	2.00	0.233	50.95	S/.	17.70	S/.	4.80	0.88
CAMARA ER-13 SUPER BULL PREMIUN TR13	C	2	6	1207	201.17	85.69	2.00	0.233	172.98	S/.	9.00	S/.	1.50	0.83
CAMARA 1000-20 SUPER BULL PREMIUN TR78A	C	2	6	192	32.00	15.07	2.00	0.233	30.37	S/.	42.60	S/.	9.40	0.86
CAMARA 1000R20 SUPER BULL PREMIUN TR78A	C	2	6	139	23.17	9.57	2.00	0.233	19.33	S/.	46.50	S/.	8.50	0.84
CAMARA 1100R22 SUPER BULL PREMIUN TR78A	C	8	1.5	14	9.33	3.77	2.00	0.233	11.94	S/.	54.20	S/.	10.80	0.58
CAMARA 11L-16 SUPER BULL PREMIUN TR15	C	16	0.75	9	12.00	1.41	2.00	0.233	6.00	S/.	28.00	S/.	22.00	0.74
CAMARA 12.5/80-18 SUPER BULL PREMIUN TR218A	C	4	3	40	13.33	3.17	2.00	0.233	7.79	S/.	40.00	S/.	35.00	0.93
CAMARA 1200-20 SUPER BULL PREMIUN TR78A	C	2	6	138	23.00	16.78	2.00	0.233	33.66	S/.	55.60	S/.	6.40	0.77
CAMARA 1200-24 SUPER BULL PREMIUN TR78A	C	4	3	35	11.67	6.06	2.00	0.233	14.85	S/.	62.00	S/.	13.00	0.75
CAMARA 14.9/13-24 SUPER BULL PREMIUN TR 218A	C	16	0.75	4	5.33	1.00	2.00	0.233	4.24	S/.	64.00	S/.	26.00	0.59
CAMARA 14.9/13-28 SUPER BULL PREMIUN	C	8	1.5	13	8.67	2.62	2.00	0.233	8.30	S/.	73.50	S/.	41.50	0.80
CAMARA 1400-24 TR179A SUPER BULL PREMIUM	C	8	1.5	11	7.33	2.05	2.00	0.233	6.50	S/.	83.50	S/.	36.50	0.76
CAMARA 18.4/15-38 SUPER BULL PREMIUN TR218A	C	8	1.5	4	2.67	0.00	2.00	0.233	0.08	S/.	137.00	S/.	43.00	0.69
CAMARA 19.5-24 SUPER BULL PREMIUM TR218A	C	4	3	18	6.00	1.85	2.00	0.233	4.56	S/.	91.00	S/.	54.00	0.89
CAMARA 20.5-25 SUPER BULL PREMIUN TRJ1175C	C	8	1.5	6	4.00	1.00	2.00	0.233	3.16	S/.	152.00	S/.	83.00	0.79
CAMARA 23.5-25 SUPER BULL PREMIUN TRJ1175C	C	4	3	15	5.00	1.12	2.00	0.233	2.77	S/.	167.00	S/.	83.00	0.88
CAMARA 26.5-25 SUPER BULL PREMIUN TRJ1175C	C	8	1.5	4	2.67	0.00	2.00	0.233	0.08	S/.	183.00	S/.	82.00	0.76
CAMARA 400-8 SUPER BULL PREMIUM TR-13	C	4	3	166	55.33	11.48	2.00	0.233	28.32	S/.	7.70	S/.	1.30	0.70
CAMARA 750-16-R SUPER BULL PREMIUN REFORZADA TR177A	C	4	3	166	55.33	38.61	2.00	0.233	94.63	S/.	19.90	S/.	18.10	0.93
CAMARA 825-20 SUPER BULL PREMIUN TR177A	C	4	3	75	25.00	6.06	2.00	0.233	14.90	S/.	33.00	S/.	6.50	0.74
CAMARA 900-20 SUPER BULL PREMIUN TR175A	C	4	3	113	37.67	2.67	2.00	0.233	6.89	S/.	38.70	S/.	6.30	0.70



CAMARA GR-14 SUPER BULL PREMIUN TR-13	C	2	6	641	106.83	17.26	2.00	0.233	36.70	S/.	12.20	S/.	2.30	0.84
CAMARA KR-15 SUPER BULL TR177A	C	8	1.5	28	18.67	3.72	2.00	0.233	11.78	S/.	13.93	S/.	4.57	0.70
CAMARA 400-8ARL TR 87C	C	5	2.4	987	411.25	141.40	3.00	0.233	400.40	S/.	5.95	S/.	2.55	0.83
CAMARA 1100-20ARL TR78A	C	5	2.4	180	75.00	49.99	3.00	0.233	141.43	S/.	36.80	S/.	11.20	0.77
CAMARA 1200-20ARL TR78A	C	5	2.4	120	50.00	19.07	3.00	0.233	53.98	S/.	40.80	S/.	11.20	0.76
CAMARA 300-18ARL TR-4	C	5	2.4	1145	477.08	122.53	3.00	0.233	347.28	S/.	7.16	S/.	1.84	0.74
CAMARA FR12 ARL	C	5	2.4	374	155.83	67.92	3.00	0.233	192.25	S/.	7.98	S/.	1.52	0.68
CAMARA FR13 ARL	C	5	2.4	282	117.50	55.41	3.00	0.233	156.83	S/.	8.40	S/.	2.10	0.74
CAMARA 275-18 SWALLOW TR4	C	2	6	1599	266.50	87.66	2.50	0.233	188.54	S/.	6.10	S/.	2.40	0.92
CAMARA 300-21 SWALLOW TR-4	C	2	6	762	127.00	32.67	2.50	0.233	70.86	S/.	7.20	S/.	4.80	0.95
CAMARA 300-17 HUNG-A TR-4	C	4	3	441	147.00	99.60	2.50	0.233	254.06	S/.	7.00	S/.	2.50	0.83
CAMARA 350-8 SWALLOW TR87C	C	8	1.5	215	143.33	26.60	2.50	0.233	86.31	S/.	5.30	S/.	2.70	0.78
CAMARA 275-18 S & M TR-4	C	6	2	177	88.50	9.73	3.00	0.233	29.39	S/.	3.98	S/.	2.02	0.83
CAMARA 300-17 S & M TR-4	C	6	2	410	205.00	72.99	3.00	0.233	219.12	S/.	4.20	S/.	2.30	0.84
CAMARA 350-8 S & M TR87C	C	12	1	145	145.00	16.89	3.00	0.233	65.47	S/.	3.50	S/.	2.50	0.77
CAMARA 400-8 S & M TR87C	C	3	4	1122	280.50	98.54	3.00	0.233	242.37	S/.	3.95	S/.	2.55	0.92
CAMARA 410-18 S & M TR-4	C	6	2	170	85.00	25.54	3.00	0.233	76.69	S/.	5.70	S/.	4.30	0.88
PARCHE VIPAL RAC12	C	1	12	3470	289.17	153.19	0.06	0.033	158.26	S/.	3.71	S/.	0.79	0.92
PARCHE VIPAL RT-3	C	2	6	14760	2460.00	533.60	0.06	0.033	767.58	S/.	0.57	S/.	0.23	0.92
PARCHE VIPAL VD6	C	1	12	1114	92.83	79.66	0.06	0.033	82.20	S/.	17.06	S/.	2.94	0.91
CAMARA 1100-20 CONCORD PLUS TR78A	C	4	3	29	9.67	5.50	0.06	0.033	11.09	S/.	44.40	S/.	6.60	0.68
CAMARA 1200-20 CONCORD PLUS	C	4	3	51	17.00	7.26	0.06	0.033	14.63	S/.	56.00	S/.	4.00	0.50
CAMARA 20.8 X 38 NEXEN TR218A	C	4	3	5	1.67	1.50	0.06	0.033	3.02	S/.	222.66	S/.	57.34	0.78
CAMARA 275/300-17 GOSTONE TR 4	C	4	3	238	79.33	28.21	0.06	0.033	56.87	S/.	4.50	S/.	1.50	0.83
CAMARA 275/300-17FORTUNE TR-4	C	8	1.5	68	45.33	0.00	0.06	0.033	0.19	S/.	7.69	S/.	1.61	0.60
CAMARA 275-18 DURO TR-4	C	4	3	74	24.67	5.00	0.06	0.033	10.08	S/.	9.90	S/.	1.60	0.70
CAMARA 275-18 KENDA TR-4	C	8	1.5	21	14.00	3.27	0.06	0.033	9.27	S/.	9.80	S/.	0.20	0.13
CAMARA 300-17 KENDA TR-4	C	2	6	338	56.33	32.27	0.06	0.033	46.37	S/.	9.80	S/.	1.70	0.83
CAMARA 300-21 KENDA TR-4	C	8	1.5	36	24.00	3.31	0.06	0.033	9.41	S/.	11.24	S/.	4.26	0.73
CAMARA 400-8 GOSTONE TR 87C	C	2	6	1635	272.50	96.81	0.06	0.033	139.13	S/.	5.30	S/.	1.20	0.86
CAMARA 400-8 KENDA TR87C	C	2	6	863	143.83	30.61	0.06	0.033	44.04	S/.	8.14	S/.	2.86	0.91
CAMARA 400-8 TRULPER TR 87C	C	4	3	286	95.33	51.89	0.06	0.033	104.60	S/.	4.50	S/.	1.50	0.83
CAMARA 400-8M MARELY	C	16	0.75	15	20.00	0.00	0.06	0.033	0.04	S/.	5.00	S/.	1.50	0.51
CAMARA 410-18 GOSTONE	C	8	1.5	39	26.00	1.61	0.06	0.033	4.57	S/.	8.50	S/.	1.50	0.56
CAMARA 410-18 KENDA TR-4	C	4	3	84	28.00	8.76	0.06	0.033	17.65	S/.	12.26	S/.	4.24	0.83
CAMARA 700-15 CAMEL	C	4	3	108	36.00	0.00	0.06	0.033	0.30	S/.	23.70	S/.	1.80	0.52
CAMARA 700-15CP CONCORD PLUS TR 177A	C	4	3	57	19.00	3.50	0.06	0.033	7.06	S/.	19.89	S/.	2.11	0.60
CAMARA 700-16 CONCORD PLUS	C	2	6	146	24.33	23.44	0.06	0.033	33.67	S/.	19.00	S/.	4.50	0.87
CAMARA 700X16 NEXEN	C	2	6	226	37.67	10.38	0.06	0.033	14.93	S/.	24.51	S/.	4.99	0.85
CAMARA 750-16 CAMELL TR177A	C	2	6	220	36.67	81.24	0.06	0.033	116.70	S/.	20.33	S/.	5.17	0.88
CAMARA 750-16D DIAMOND	C	8	1.5	15	10.00	5.50	0.06	0.033	15.62	S/.	15.00	S/.	10.50	0.83
CAMARA 750X16 NEXEN	C	2	6	114	19.00	5.99	0.06	0.033	8.61	S/.	27.05	S/.	1.95	0.67
CAMARA 825-20C CONCORD PLUS TR177A	C	16	0.75	5	6.67	1.50	0.06	0.033	6.01	S/.	32.14	S/.	12.86	0.59
CAMARA DE BICICLETA 20X1.90/2.125 CST ARO 20	C	8	1.5	53	35.33	5.15	0.06	0.033	14.63	S/.	4.50	S/.	1.50	0.70
CAMARA DE BICICLETA 24X1.90/2.125 CST ARO 24	C	8	1.5	69	46.00	4.59	0.06	0.033	13.05	S/.	4.50	S/.	1.50	0.70

CAMARA DE BICICLETA 26X1.90/2.125 CST ARO 26	C	4	3	204	68.00	9.83	0.06	0.033	19.82	S/. 4.80	S/. 1.20	0.78
CAMARA ER-12 CAMELL TR13	C	8	1.5	26	17.33	2.92	0.06	0.033	8.31	S/. 8.74	S/. 1.76	0.59
CAMARA ER-12 NEXEN TR-13	C	4	3	202	67.33	25.99	0.06	0.033	52.40	S/. 9.53	S/. 3.47	0.84
CAMARA ER-12C CONCORD PLUS TR13	C	2	6	724	120.67	238.29	0.06	0.033	342.29	S/. 8.37	S/. 1.13	0.79
CAMARA ER-15 DIAMOND TR-13	C	4	3	133	44.33	9.33	0.06	0.033	18.81	S/. 9.25	S/. 5.75	0.90
CAMARA FR-13 NEXEN TR13	C	4	3	85	28.33	10.93	0.06	0.033	22.04	S/. 12.18	S/. 1.32	0.61
CAMARA FR-14CP CONCORD PLUS TR 13	C	4	3	110	36.67	33.88	0.06	0.033	68.29	S/. 9.99	S/. 2.51	0.78
CAMARA FR-15 DIAMOND	C	2	6	295	49.17	33.22	0.06	0.033	47.72	S/. 9.50	S/. 5.00	0.94
CAMARA GR-13 CONCORD PLUS TR-13	C	8	1.5	60	40.00	0.00	0.06	0.033	0.17	S/. 10.11	S/. 3.39	0.70
CAMARA KR-15 NEXEN TR-13	C	16	0.75	5	6.67	0.47	0.06	0.033	1.89	S/. 20.97	S/. 2.03	0.26
CAMARA KR-16C CAMELL TR13	C	16	0.75	6	8.00	0.00	0.06	0.033	0.02	S/. 17.00	S/. 3.00	0.38
CAMARA KR-16CP CONCORD PLUS TR177A	C	4	3	43	14.33	7.71	0.06	0.033	15.55	S/. 16.87	S/. 5.13	0.81
PARCHE COLD PATCH S-48	C	2	6	5560	926.67	399.40	0.06	0.033	573.92	S/. 1.87	S/. 0.63	0.91
PARCHE COLD PATCH YP3-219	C	32	0.375	938	2501.33	160.32	0.06	0.033	907.81	S/. 0.03	S/. 0.07	0.82
PARCHE COLD PATCH YP3-221	C	16	0.75	2831	3774.67	416.95	0.06	0.033	1671.11	S/. 0.06	S/. 0.14	0.90
PARCHE P-2 PANESA	C	8	1.5	4242	2828.00	441.04	0.06	0.033	1252.45	S/. 0.13	S/. 0.26	0.94
PARCHE PARA PISCINA #62068 EN STICKERS	C	16	0.75	28	37.33	3.86	0.06	0.033	15.47	S/. 2.50	S/. 2.50	0.78
PARCHE PARA PISCINA 59632 NP	C	8	1.5	121	80.67	19.92	0.06	0.033	56.57	S/. 1.70	S/. 5.80	0.96
PARCHE VD10 VIPAL	C	2	6	86	14.33	17.72	0.06	0.033	25.45	S/. 80.51	S/. 21.99	0.89
PARCHE VF-3 VIPAL	C	4	3	5256	1752.00	940.08	0.06	0.033	1895.04	S/. 0.45	S/. 0.10	0.75
PARCHE VIPAL R-05	C	2	6	3291	548.50	148.35	0.06	0.033	213.29	S/. 1.88	S/. 0.62	0.90
PARCHE VIPAL R-06	C	4	3	764	254.67	52.80	0.06	0.033	106.45	S/. 2.69	S/. 0.81	0.81
PARCHE VIPAL RAC08	C	4	3	372	124.00	27.33	0.06	0.033	55.10	S/. 2.19	S/. 3.31	0.96
PARCHE VIPAL RAC14	C	2	6	2128	354.67	72.23	0.06	0.033	103.92	S/. 4.31	S/. 0.79	0.84
PARCHE VIPAL RAC20	C	2	6	490	81.67	26.47	0.06	0.033	38.04	S/. 6.19	S/. 1.31	0.86
PARCHE VIPAL RAC22	C	4	3	334	111.33	17.55	0.06	0.033	35.39	S/. 6.23	S/. 1.57	0.78
PARCHE VIPAL RAC24	C	16	0.75	19	25.33	3.98	0.06	0.033	15.93	S/. 7.67	S/. 2.83	0.57
PARCHE VIPAL RAC25	C	4	3	85	28.33	11.19	0.06	0.033	22.55	S/. 8.54	S/. 3.46	0.85
PARCHE VIPAL RAC35	C	2	6	432	72.00	21.88	0.06	0.033	31.46	S/. 12.05	S/. 2.45	0.85
PARCHE VIPAL RAC40	C	2	6	280	46.67	12.83	0.06	0.033	18.44	S/. 10.77	S/. 2.23	0.85
PARCHE VIPAL RAC42	C	8	1.5	49	32.67	3.02	0.06	0.033	8.57	S/. 13.75	S/. 3.25	0.63
PARCHE VIPAL RAC44	C	8	1.5	42	28.00	14.77	0.06	0.033	41.95	S/. 16.51	S/. 4.99	0.68
PARCHE VIPAL RBM-02	C	8	1.5	1609	1072.67	105.57	0.06	0.033	299.80	S/. 0.26	S/. 0.44	0.92
PARCHE VIPAL VD7	C	2	6	284	47.33	27.21	0.06	0.033	39.09	S/. 25.08	S/. 2.92	0.77
PARCHE VIPAL VD8	C	2	6	132	22.00	17.31	0.06	0.033	24.86	S/. 41.19	S/. 7.81	0.84
PARCHE VIPAL VD9	C	8	1.5	5	3.33	0.47	0.06	0.033	1.34	S/. 52.40	S/. 9.60	0.56
PARCHE VIPAL VF-6	C	2	6	5336	889.33	654.55	0.06	0.033	940.33	S/. 0.83	S/. 0.27	0.90

Anexo 22.2. Curva de Intercambio para los artículos Clase A

PRODUCTO	SITUACIÓN INICIAL (K-opt por SKU)									
	NIVEL DE SERVICIO ÓPTIMO	pu(k-opt)	pu (redondeada)	DESV. EST. TOTAL * COSTO UNIT	INVENTARIO DE SEGURIDAD (UNID)	INVENTARIO DE SEGURIDAD (S./)	K-opt	Gu(k-opt)	N° ESPERADO DE STOCKOUTS/AÑO	VALOR ESPERADO DE COSTO DE FALTANTES (S./AÑO)
PARCHE DC110-30 NINGBO	0.9522436	0.0477564	0.048	S/. 1,826.09	49210	S/. 3,031.34	1.66	0.020147	0.191025692	S/. 147.16
PARCHE M-48 EVERWINNER	0.9461169	0.0538831	0.054	S/. 3,247.46	4150	S/. 5,229.00	1.61	0.0227	0.215532438	S/. 294.87
PARCHE SCHRADER SBR1	0.9617018	0.0382982	0.038	S/. 1,634.51	22255	S/. 2,893.15	1.77	0.01539	0.229789047	S/. 150.93
PARCHE SCHRADER SBMC2	0.9090967	0.0909033	0.091	S/. 2,168.67	1603	S/. 2,885.40	1.33	0.0427	0.545419611	S/. 555.61
PARCHE SCHRADER SBRO	0.9646479	0.0353521	0.035	S/. 1,493.92	27040	S/. 2,704.00	1.81	0.01392	0.212112842	S/. 124.77
PARCHE SCHRADER SBMC3	0.9307121	0.0692879	0.069	S/. 1,567.95	948	S/. 2,322.60	1.48	0.030669	0.415727453	S/. 288.52
PARCHE SCHRADER SBR2	0.8737445	0.1262555	0.126	S/. 755.00	2779	S/. 868.44	1.15	0.062103	0.757533228	S/. 281.33
PARCHE SCHRADER SBRC10	0.9191975	0.0808025	0.081	S/. 1,938.12	1696	S/. 2,713.60	1.4	0.036668	0.484814978	S/. 426.40
CAMARA FR-13 SUPER BULL PREMIUN TR-13	0.8906399	0.1093601	0.109	S/. 3,636.39	452	S/. 4,474.80	1.23	0.052737	1.31232139	S/. 2,301.27
CAMARA 700-16 SUPER BULL PREMIUN TR177A	0.9293060	0.0706940	0.071	S/. 5,588.51	437	S/. 8,215.60	1.47	0.03137	0.848327548	S/. 2,103.74
CAMARA 750-16 SUPER BULL PREMIUN TR177A	0.9371939	0.0628061	0.063	S/. 5,497.73	423	S/. 8,417.70	1.53	0.02736	0.753673006	S/. 1,805.01
CAMARA 825-16 SUPER BULL PREMIUN TR177A	0.9236227	0.0763773	0.076	S/. 14,809.79	791	S/. 21,198.80	1.43	0.034312	0.91652745	S/. 6,097.84
CAMARA ER-12 SUPER BULL PREMIUN TR-13	0.9221382	0.0778618	0.078	S/. 4,112.71	717	S/. 5,843.55	1.42	0.035083	0.934341791	S/. 1,731.43
CAMARA FR-14 SUPER BULL PREMIUN TR-13	0.9072124	0.0927876	0.093	S/. 3,031.44	382	S/. 4,011.00	1.32	0.043626	1.113450717	S/. 1,587.00
CAMARA KR-15 SUPER BULL PREMIUN TR-13	0.9356227	0.0643773	0.064	S/. 2,428.78	242	S/. 3,702.60	1.52	0.027996	0.772528154	S/. 815.95
CAMARA KR-16 SUPER BULL PREMIUN TR-13	0.9476464	0.0523536	0.052	S/. 3,577.02	372	S/. 5,840.40	1.63	0.021647	0.628243503	S/. 929.18
CAMARA 300-18 SWALLOW TR4	0.9080888	0.0919112	0.092	S/. 5,371.34	1100	S/. 7,150.00	1.33	0.0427	0.551467083	S/. 1,376.14
CAMARA 300-18 S & M TR-4	0.8963577	0.1036423	0.104	S/. 3,895.79	1142	S/. 4,910.60	1.26	0.049539	0.414569242	S/. 771.97
PARCHE VIPAL R-01	0.9485364	0.0514636	0.051	S/. 1,317.58	8295	S/. 2,161.01	1.64	0.021137	0.617563288	S/. 334.20
PARCHE VIPAL VD1	0.9217438	0.0782562	0.078	S/. 1,567.98	1300	S/. 2,226.99	1.42	0.035083	0.939074894	S/. 660.11
PARCHE VIPAL R-00	0.9080333	0.0919667	0.092	S/. 1,361.34	7710	S/. 1,810.77	1.33	0.0427	1.10360059	S/. 697.55
PARCHE VIPAL VD2	0.9214722	0.0785278	0.079	S/. 936.16	522	S/. 1,320.89	1.41	0.035868	0.942333883	S/. 402.94
	0.93			TOTAL S/. 71,764.28	TOTAL	S/. 103,932.24		TOTAL	14.89997783	S/. 23,883.94

PRODUCTO	PROPUESTA 1 (K-balanceada)						
	K-Balanceado	INVENTARIO DE SEGURIDAD (UNID)	INVENTARIO DE SEGURIDAD (S./)	pu(k-bal)	Gu(k-bal)	N° ESPERADO DE STOCKOUTS/AÑO	VALOR ESPERADO DE COSTO DE FALTANTES (S./AÑO)
PARCHE DC110-30 NINGBO	1.45	42985	S/. 2,647.88	0.073529	0.032813	0.294116	S/. 239.68
PARCHE M-48 EVERWINNER	1.45	3738	S/. 4,709.88	0.073529	0.032813	0.294116	S/. 426.24
PARCHE SCHRADER SBR1	1.45	18232	S/. 2,370.16	0.073529	0.032813	0.441174	S/. 321.80
PARCHE SCHRADER SBMC2	1.45	1747	S/. 3,144.60	0.073529	0.032813	0.441174	S/. 426.96
PARCHE SCHRADER SBRO	1.45	21662	S/. 2,166.20	0.073529	0.032813	0.441174	S/. 294.12
PARCHE SCHRADER SBMC3	1.45	928	S/. 2,273.60	0.073529	0.032813	0.441174	S/. 308.69
PARCHE SCHRADER SBR2	1.45	3504	S/. 1,095.00	0.073529	0.032813	0.441174	S/. 148.64
PARCHE SCHRADER SBRC10	1.45	1757	S/. 2,811.20	0.073529	0.032813	0.441174	S/. 381.57
CAMARA FR-13 SUPER BULL PREMIUN TR-13	1.45	533	S/. 5,276.70	0.073529	0.032813	0.882348	S/. 1,431.85
CAMARA 700-16 SUPER BULL PREMIUN TR177A	1.45	432	S/. 8,121.60	0.073529	0.032813	0.882348	S/. 2,200.51
CAMARA 750-16 SUPER BULL PREMIUN TR177A	1.45	401	S/. 7,979.90	0.073529	0.032813	0.882348	S/. 2,164.76
CAMARA 825-16 SUPER BULL PREMIUN TR177A	1.45	802	S/. 21,493.60	0.073529	0.032813	0.882348	S/. 5,831.44
CAMARA ER-12 SUPER BULL PREMIUN TR-13	1.45	732	S/. 5,965.80	0.073529	0.032813	0.882348	S/. 1,619.40
CAMARA FR-14 SUPER BULL PREMIUN TR-13	1.45	419	S/. 4,399.50	0.073529	0.032813	0.882348	S/. 1,193.65
CAMARA KR-15 SUPER BULL PREMIUN TR-13	1.45	231	S/. 3,534.30	0.073529	0.032813	0.882348	S/. 956.35
CAMARA KR-16 SUPER BULL PREMIUN TR-13	1.45	331	S/. 5,196.70	0.073529	0.032813	0.882348	S/. 1,408.47
CAMARA 300-18 SWALLOW TR4	1.45	1199	S/. 7,793.50	0.073529	0.032813	0.441174	S/. 1,057.50
CAMARA 300-18 S & M TR-4	1.45	1314	S/. 5,650.20	0.073529	0.032813	0.294116	S/. 511.33
PARCHE VIPAL R-01	1.45	7334	S/. 1,910.65	0.073529	0.032813	0.882348	S/. 518.80
PARCHE VIPAL VD1	1.45	1328	S/. 2,274.96	0.073529	0.032813	0.882348	S/. 617.40
PARCHE VIPAL R-00	1.45	8405	S/. 1,974.00	0.073529	0.032813	0.882348	S/. 536.03
PARCHE VIPAL VD2	1.45	537	S/. 1,358.85	0.073529	0.032813	0.882348	S/. 368.62
		TOTAL	S/. 104,148.78	TOTAL		14.558742	S/. 22,963.83

PRODUCTO	K-Propuesto	INVENTARIO DE SEGURIDAD (UNID)	INVENTARIO DE SEGURIDAD (S./)	pu(k-prop)	Gu(prop)	N° ESPERADO DE STOCKOUTS	VALOR ESPERADO DE COSTO DE FALTANTES (S./AÑO)
PARCHE DC110-30 NINGBO	2.04	60475	S/. 3,725.26	0.020675	0.007623	0.0827	S/. 55.68
PARCHE M-48 EVERWINNER	2.04	5258	S/. 6,625.08	0.020675	0.007623	0.0827	S/. 99.02
PARCHE SCHRADER SBR1	2.04	25650	S/. 3,334.50	0.020675	0.007623	0.12405	S/. 74.76
PARCHE SCHRADER SBMC2	2.04	2458	S/. 4,424.40	0.020675	0.007623	0.12405	S/. 99.19
PARCHE SCHRADER SBR0	2.04	30476	S/. 3,047.60	0.020675	0.007623	0.12405	S/. 68.33
PARCHE SCHRADER SBMC3	2.04	1306	S/. 3,199.70	0.020675	0.007623	0.12405	S/. 71.71
PARCHE SCHRADER SBR2	2.04	4929	S/. 1,540.31	0.020675	0.007623	0.12405	S/. 34.53
PARCHE SCHRADER SBRC10	2.04	2472	S/. 3,955.20	0.020675	0.007623	0.12405	S/. 88.65
CAMARA FR-13 SUPER BULL PREMIUN TR-13	2.04	750	S/. 7,425.00	0.020675	0.007623	0.2481	S/. 332.64
CAMARA 700-16 SUPER BULL PREMIUN TR177A	2.04	607	S/. 11,411.60	0.020675	0.007623	0.2481	S/. 511.21
CAMARA 750-16 SUPER BULL PREMIUN TR177A	2.04	564	S/. 11,223.60	0.020675	0.007623	0.2481	S/. 502.91
CAMARA 825-16 SUPER BULL PREMIUN TR177A	2.04	1128	S/. 30,230.40	0.020675	0.007623	0.2481	S/. 1,354.74
CAMARA ER-12 SUPER BULL PREMIUN TR-13	2.04	1030	S/. 8,394.50	0.020675	0.007623	0.2481	S/. 376.21
CAMARA FR-14 SUPER BULL PREMIUN TR-13	2.04	589	S/. 6,184.50	0.020675	0.007623	0.2481	S/. 277.30
CAMARA KR-15 SUPER BULL PREMIUN TR-13	2.04	324	S/. 4,957.20	0.020675	0.007623	0.2481	S/. 222.17
CAMARA KR-16 SUPER BULL PREMIUN TR-13	2.04	465	S/. 7,300.50	0.020675	0.007623	0.2481	S/. 327.21
CAMARA 300-18 SWALLOW TR4	2.04	1686	S/. 10,959.00	0.020675	0.007623	0.12405	S/. 245.67
CAMARA 300-18 S & M TR-4	2.04	1849	S/. 7,950.70	0.020675	0.007623	0.0827	S/. 118.79
PARCHE VIPAL R-01	2.04	10318	S/. 2,688.05	0.020675	0.007623	0.2481	S/. 120.53
PARCHE VIPAL VD1	2.04	1868	S/. 3,200.01	0.020675	0.007623	0.2481	S/. 143.43
PARCHE VIPAL R-00	2.04	11825	S/. 2,777.22	0.020675	0.007623	0.2481	S/. 124.53
PARCHE VIPAL VD2	2.04	755	S/. 1,910.49	0.020675	0.007623	0.2481	S/. 85.64
<b>TOTAL</b>			<b>S/. 146,464.82</b>			<b>TOTAL 4.09365</b>	<b>S/. 5,334.88</b>

	INV. SEGURIDAD (S./)	Índice de costo de posesión	COSTO MANTENER SS	COSTO POR FALTANTES	COSTO TOTAL	NIVEL DE SERVICIO
<b>SITUACIÓN K-Óptimo</b>	S/. 103,932.24	21.21%	S/. 22,045.40	S/. 23,883.94	S/. 45,929.33	VARIADO
<b>SITUACIÓN K-Balanceado</b>	S/. 104,148.78	21.21%	S/. 22,091.33	S/. 22,963.83	S/. 45,055.16	92.6%
<b>SITUACIÓN K-Máx</b>	S/. 146,464.82	21.21%	S/. 31,067.12	S/. 5,334.88	<b>S/. 36,401.99</b>	<b>97.9%</b>

<b>K-propuesto</b>	2.04	Con este valor se minimiza el Costo Total
<b>Nivel de Servicio (P1)</b>	97.9%	
<b>Nivel de Servicio (P2)</b>	99.66%	

Anexo 22.3. Curva de Intercambio para los artículos Clase B

PRODUCTO	SITUACIÓN INICIAL (K-opt por SKU)									
	NIVEL DE SERVICIO ÓPTIMO	pu(k-opt)	pu (redondeada)	DESV. EST. TOTAL * COSTO UNIT	INVENTARIO DE SEGURIDAD (UNID)	INVENTARIO DE SEGURIDAD (S./)	K-opt	Gu(k-opt)	Nº ESPERADO DE STOCKOUTS/AÑO	VALOR ESPERADO DE COSTO DE FALTANTES (S./AÑO)
PARCHE DC110-40 NINGBO	0.9440663	0.0559337	0.056	S/. 1,056.28	18177	S/. 1,679.55	1.59	0.023796	0.223734745	S/. 100.54
PARCHE SCHRADER SBF1	0.9292962	0.0707038	0.071	S/. 1,463.90	10760	S/. 2,152.00	1.47	0.03137	0.424222699	S/. 275.54
PARCHE SCHRADER SBF2	0.9439248	0.0560752	0.056	S/. 663.23	2293	S/. 1,054.78	1.59	0.023796	0.336451283	S/. 94.69
PARCHE SCHRADER SBF3	0.9430877	0.0569123	0.057	S/. 2,067.48	5575	S/. 3,266.95	1.58	0.02436	0.341473971	S/. 302.18
PARCHE SCHRADER SBMC4	0.9272201	0.0727799	0.073	S/. 2,370.57	983	S/. 3,440.50	1.45	0.032813	0.436679206	S/. 466.71
PARCHE SCHRADER SBMC5	0.8625430	0.1374570	0.137	S/. 2,822.46	440	S/. 3,080.00	1.09	0.069987	0.824741718	S/. 1,185.21
PARCHE SCHRADER SBR3	0.9587561	0.0412439	0.041	S/. 709.36	3527	S/. 1,234.45	1.74	0.016579	0.247463417	S/. 70.56
PARCHE SCHRADER SBRB1	0.9604888	0.0395112	0.040	S/. 1,406.51	25910	S/. 2,461.45	1.75	0.016174	0.237067153	S/. 136.49
PARCHE SCHRADER SBMC6	0.8421232	0.1578768	0.158	S/. 1,590.72	112	S/. 1,601.60	1	0.083315	0.94726064	S/. 795.19
PARCHE SCHRADER SBR4	0.9362353	0.0637647	0.064	S/. 612.58	1930	S/. 931.23	1.52	0.027996	0.382588228	S/. 102.90
PARCHE SCHRADER SBRC12	0.8485084	0.1514916	0.151	S/. 1,272.69	437	S/. 1,311.00	1.03	0.078664	0.908949523	S/. 600.69
PARCHE SCHRADER SBRC14	0.9068082	0.0931918	0.093	S/. 1,317.06	600	S/. 1,740.00	1.32	0.043626	0.559150639	S/. 344.75
PARCHE SCHRADER SBRC40	0.9335952	0.0664048	0.066	S/. 487.37	119	S/. 737.80	1.51	0.028645	0.398428936	S/. 83.76
CAMARA 1200R20 SUPER BULL PREMIUN TR78A	0.8903114	0.1096886	0.110	S/. 2,253.24	50	S/. 2,800.00	1.23	0.052737	1.316262678	S/. 1,425.95
CAMARA 700-15 SUPER BULL PREMIUN TR177A	0.8526364	0.1473636	0.147	S/. 1,154.66	67	S/. 1,216.05	1.05	0.07568	0.884181591	S/. 524.31
CAMARA KR-14 SUPER BULL PREMIUN TR-13	0.8410260	0.1589740	0.159	S/. 1,130.78	84	S/. 1,134.00	1	0.083315	0.953844217	S/. 565.27
CAMARA 300-18 HUNG-A TR-4	0.8754471	0.1245529	0.125	S/. 2,440.40	380	S/. 2,812.00	1.15	0.062103	0.747317527	S/. 909.34
CAMARA 400-8 SWALLOW TR87C	0.9327237	0.0672763	0.067	S/. 1,566.37	399	S/. 2,354.10	1.5	0.029307	0.403657827	S/. 275.43
CAMARA 300-17 SWALLOW TR4	0.9175322	0.0824678	0.082	S/. 1,397.37	309	S/. 1,946.70	1.39	0.037483	0.494806921	S/. 314.27
CAMARA 410-18 SWALLOW TR-4	0.9294751	0.0705249	0.071	S/. 1,078.46	184	S/. 1,593.44	1.47	0.03137	0.423149251	S/. 202.99
CAMARA 300-18 KENDA TR-4	0.9160632	0.0839368	0.084	S/. 1,094.38	159	S/. 1,510.50	1.38	0.038313	1.007241257	S/. 503.15
PARCHE VIPAL R-02	0.9370566	0.0629434	0.063	S/. 583.07	2286	S/. 892.40	1.53	0.02736	0.755321048	S/. 191.43
PARCHE VIPAL R-03	0.9529560	0.0470440	0.047	S/. 606.61	1549	S/. 1,013.36	1.67	0.019668	0.564527907	S/. 143.17
PARCHE VIPAL R-04	0.9252432	0.0747568	0.075	S/. 400.50	714	S/. 577.47	1.44	0.033555	0.897081832	S/. 161.27
PARCHE VIPAL RBM-01	0.9042832	0.0957168	0.096	S/. 509.90	3631	S/. 662.91	1.3	0.045528	0.574300983	S/. 139.29
PARCHE COLD PATCH L-24	0.9707499	0.0292501	0.029	S/. 840.62	850	S/. 1,589.50	1.89	0.011345	0.351000957	S/. 114.44
PARCHE VIPAL RAC10	0.9237928	0.0762072	0.076	S/. 923.52	603	S/. 1,321.60	1.43	0.034312	0.914486499	S/. 380.25
PARCHE VIPAL VD3	0.9142677	0.0857323	0.086	S/. 618.87	228	S/. 850.65	1.37	0.039159	1.028788095	S/. 290.81
PARCHE VIPAL VD4	0.9201664	0.0798336	0.080	S/. 571.18	136	S/. 801.73	1.4	0.036668	0.958003108	S/. 251.33
PARCHE VIPAL VD5	0.8668174	0.1331826	0.133	S/. 1,149.87	138	S/. 1,279.30	1.11	0.067274	1.598191452	S/. 928.28
PARCHE VIPAL VF-8	0.8359935	0.1640065	0.164	S/. 821.62	687	S/. 806.22	0.98	0.086537	1.968077663	S/. 853.21
	0.91			<b>TOTAL S/. 36,981.63</b>	<b>TOTAL</b>	<b>S/. 49,853.23</b>	<b>TOTAL</b>	<b>TOTAL</b>	<b>22.10845297</b>	<b>S/. 12,733.40</b>

PRODUCTO	PROPUESTA 1 (K-balanceada)							VALOR ESPERADO DE COSTO DE FALTANTES (S./AÑO)
	K-Balanceado	INVENTARIO DE SEGURIDAD (UNID)	INVENTARIO DE SEGURIDAD (S/.)	pu(k-bal)	Gu(k-bal)	N° ESPERADO DE STOCKOUTS/AÑO		
PARCHE DC110-40 NINGBO	1.35	15433	S/. 1,426.01	0.088508	0.040897	0.354032	S/. 172.79	
PARCHE SCHRADER SBF1	1.35	9882	S/. 1,976.40	0.088508	0.040897	0.531048	S/. 359.22	
PARCHE SCHRADER SBF2	1.35	1947	S/. 895.62	0.088508	0.040897	0.531048	S/. 162.74	
PARCHE SCHRADER SBF3	1.35	4763	S/. 2,791.12	0.088508	0.040897	0.531048	S/. 507.32	
PARCHE SCHRADER SBMC4	1.35	915	S/. 3,202.50	0.088508	0.040897	0.531048	S/. 581.69	
PARCHE SCHRADER SBMC5	1.35	545	S/. 3,815.00	0.088508	0.040897	0.531048	S/. 692.58	
PARCHE SCHRADER SBR3	1.35	2737	S/. 957.95	0.088508	0.040897	0.531048	S/. 174.06	
PARCHE SCHRADER SBRB1	1.35	19988	S/. 1,898.86	0.088508	0.040897	0.531048	S/. 345.13	
PARCHE SCHRADER SBMC6	1.35	151	S/. 2,159.30	0.088508	0.040897	0.531048	S/. 390.33	
PARCHE SCHRADER SBR4	1.35	1714	S/. 827.01	0.088508	0.040897	0.531048	S/. 150.32	
PARCHE SCHRADER SBRC12	1.35	573	S/. 1,719.00	0.088508	0.040897	0.531048	S/. 312.29	
PARCHE SCHRADER SBRC14	1.35	614	S/. 1,780.60	0.088508	0.040897	0.531048	S/. 323.18	
PARCHE SCHRADER SBRC40	1.35	107	S/. 663.40	0.088508	0.040897	0.531048	S/. 119.59	
CAMARA 1200R20 SUPER BULL PREMIUN TR78A	1.35	55	S/. 3,080.00	0.088508	0.040897	1.062096	S/. 1,105.81	
CAMARA 700-15 SUPER BULL PREMIUN TR177A	1.35	86	S/. 1,560.90	0.088508	0.040897	0.531048	S/. 283.33	
CAMARA KR-14 SUPER BULL PREMIUN TR-13	1.35	114	S/. 1,539.00	0.088508	0.040897	0.531048	S/. 277.47	
CAMARA 300-18 HUNG-A TR-4	1.35	446	S/. 3,300.40	0.088508	0.040897	0.531048	S/. 598.83	
CAMARA 400-8 SWALLOW TR87C	1.35	359	S/. 2,118.10	0.088508	0.040897	0.531048	S/. 384.36	
CAMARA 300-17 SWALLOW TR4	1.35	300	S/. 1,890.00	0.088508	0.040897	0.531048	S/. 342.89	
CAMARA 410-18 SWALLOW TR-4	1.35	169	S/. 1,463.54	0.088508	0.040897	0.531048	S/. 264.63	
CAMARA 300-18 KENDA TR-4	1.35	156	S/. 1,482.00	0.088508	0.040897	1.062096	S/. 537.08	
PARCHE VIPAL R-02	1.35	2017	S/. 787.39	0.088508	0.040897	1.062096	S/. 286.15	
PARCHE VIPAL R-03	1.35	1252	S/. 819.06	0.088508	0.040897	1.062096	S/. 297.70	
PARCHE VIPAL R-04	1.35	669	S/. 541.07	0.088508	0.040897	1.062096	S/. 196.55	
PARCHE VIPAL RBM-01	1.35	3771	S/. 688.47	0.088508	0.040897	0.531048	S/. 125.12	
PARCHE COLD PATCH L-24	1.35	607	S/. 1,135.09	0.088508	0.040897	1.062096	S/. 412.55	
PARCHE VIPAL RAC10	1.35	569	S/. 1,247.08	0.088508	0.040897	1.062096	S/. 453.23	
PARCHE VIPAL VD3	1.35	224	S/. 835.72	0.088508	0.040897	1.062096	S/. 303.72	
PARCHE VIPAL VD4	1.35	131	S/. 772.26	0.088508	0.040897	1.062096	S/. 280.31	
PARCHE VIPAL VD5	1.35	168	S/. 1,557.41	0.088508	0.040897	1.062096	S/. 564.32	
PARCHE VIPAL VF-8	1.35	946	S/. 1,110.17	0.088508	0.040897	1.062096	S/. 403.22	
<b>TOTAL</b>			<b>S/. 50,040.42</b>		<b>TOTAL</b>	<b>22.127</b>	<b>S/. 11,408.55</b>	

PROPUESTA 2 (K-prop)								
PRODUCTO	K-Propuesto	INVENTARIO DE SEGURIDAD (UNID)	INVENTARIO DE SEGURIDAD (S/.)	pu(k-bal)	Gu(k-bal)	N° ESPERADO DE STOCKOUTS/AÑO	VALOR ESPERADO DE COSTO DE FALTANTES (S./AÑO)	
PARCHE DC110-40 NINGBO	1.47	16805	S/. 1,552.78	0.070781	0.03137	0.283124	S/.	132.54
PARCHE SCHRADER SBF1	1.47	10760	S/. 2,152.00	0.070781	0.03137	0.424686	S/.	275.54
PARCHE SCHRADER SBF2	1.47	2120	S/. 975.20	0.070781	0.03137	0.424686	S/.	124.83
PARCHE SCHRADER SBF3	1.47	5187	S/. 3,039.58	0.070781	0.03137	0.424686	S/.	389.14
PARCHE SCHRADER SBMC4	1.47	996	S/. 3,486.00	0.070781	0.03137	0.424686	S/.	446.19
PARCHE SCHRADER SBMC5	1.47	593	S/. 4,151.00	0.070781	0.03137	0.424686	S/.	531.24
PARCHE SCHRADER SBR3	1.47	2980	S/. 1,043.00	0.070781	0.03137	0.424686	S/.	133.51
PARCHE SCHRADER SBRB1	1.47	21764	S/. 2,067.58	0.070781	0.03137	0.424686	S/.	264.73
PARCHE SCHRADER SBMC6	1.47	164	S/. 2,345.20	0.070781	0.03137	0.424686	S/.	299.41
PARCHE SCHRADER SBR4	1.47	1867	S/. 900.83	0.070781	0.03137	0.424686	S/.	115.30
PARCHE SCHRADER SBRC12	1.47	624	S/. 1,872.00	0.070781	0.03137	0.424686	S/.	239.55
PARCHE SCHRADER SBRC14	1.47	668	S/. 1,937.20	0.070781	0.03137	0.424686	S/.	247.90
PARCHE SCHRADER SBRC40	1.47	116	S/. 719.20	0.070781	0.03137	0.424686	S/.	91.73
CAMARA 1200R20 SUPER BULL PREMIUN TR78A	1.47	60	S/. 3,360.00	0.070781	0.03137	0.849372	S/.	848.21
CAMARA 700-15 SUPER BULL PREMIUN TR177A	1.47	94	S/. 1,706.10	0.070781	0.03137	0.424686	S/.	217.33
CAMARA KR-14 SUPER BULL PREMIUN TR-13	1.47	124	S/. 1,674.00	0.070781	0.03137	0.424686	S/.	212.84
CAMARA 300-18 HUNG-A TR-4	1.47	485	S/. 3,589.00	0.070781	0.03137	0.424686	S/.	459.33
CAMARA 400-8 SWALLOW TR87C	1.47	391	S/. 2,306.90	0.070781	0.03137	0.424686	S/.	294.82
CAMARA 300-17 SWALLOW TR4	1.47	327	S/. 2,060.10	0.070781	0.03137	0.424686	S/.	263.01
CAMARA 410-18 SWALLOW TR-4	1.47	184	S/. 1,593.44	0.070781	0.03137	0.424686	S/.	202.99
CAMARA 300-18 KENDA TR-4	1.47	170	S/. 1,615.00	0.070781	0.03137	0.849372	S/.	411.97
PARCHE VIPAL R-02	1.47	2196	S/. 857.26	0.070781	0.03137	0.849372	S/.	219.49
PARCHE VIPAL R-03	1.47	1364	S/. 892.33	0.070781	0.03137	0.849372	S/.	228.35
PARCHE VIPAL R-04	1.47	728	S/. 588.79	0.070781	0.03137	0.849372	S/.	150.77
PARCHE VIPAL RBM-01	1.47	4106	S/. 749.63	0.070781	0.03137	0.424686	S/.	95.97
PARCHE COLD PATCH L-24	1.47	661	S/. 1,236.07	0.070781	0.03137	0.849372	S/.	316.44
PARCHE VIPAL RAC10	1.47	620	S/. 1,358.85	0.070781	0.03137	0.849372	S/.	347.65
PARCHE VIPAL VD3	1.47	244	S/. 910.34	0.070781	0.03137	0.849372	S/.	232.97
PARCHE VIPAL VD4	1.47	143	S/. 843.00	0.070781	0.03137	0.849372	S/.	215.01
PARCHE VIPAL VD5	1.47	183	S/. 1,696.46	0.070781	0.03137	0.849372	S/.	432.86
PARCHE VIPAL VF-8	1.47	1030	S/. 1,208.75	0.070781	0.03137	0.849372	S/.	309.29
<b>TOTAL</b>			<b>S/. 54,487.60</b>	<b>TOTAL</b>		<b>17.69525</b>	<b>S/.</b>	<b>8,750.92</b>

	INV. SEGURIDAD (S/.)	Índice de costo de posesión	COSTO MANTENER SS	COSTO POR FALTANTES	COSTO TOTAL	NIVEL DE SERVICIO
SITUACIÓN K-Óptimo	S/. 49,853.23	21.21%	S/. 10,574.53	S/. 12,733.40	S/. 23,307.92	VARIADO
SITUACIÓN K-Balanceado	S/. 50,040.42	21.21%	S/. 10,614.23	S/. 11,408.55	S/. 22,022.78	91.1%
SITUACIÓN K-Propuesto	S/. 54,487.60	21.21%	S/. 11,557.54	S/. 8,750.92	S/. 20,308.45	92.9%

K-propuesto	1.47
Nivel de Servicio (P1)	92.9%
Nivel de Servicio (P2)	98.09%

Anexo 22.4. Curva de Intercambio para los artículos Clase C

PRODUCTO	SITUACIÓN INICIAL (K-opt por SKU)									
	NIVEL DE SERVICIO ÓPTIMO	pu(k-opt)	pu (redondeada)	DESV. EST. TOTAL * COSTO UNIT	INVENTARIO DE SEGURIDAD (UNID)	INVENTARIO DE SEGURIDAD (S./.)	K-opt	Gu(k-opt)	N° ESPERADO DE STOCKOUTS/AÑO	VALOR ESPERADO DE COSTO DE FALTANTES (S./AÑO)
PARCHE DC107-25 NINGBO	0.90706	0.09294	0.093	S/. 373.06	21599	S/. 492.46	1.32	0.043626	0.092938803	S/. 16.28
PARCHE DC107-30 NINGBO	0.93267	0.06733	0.067	S/. 562.10	20819	S/. 843.17	1.5	0.029307	0.13465858	S/. 32.95
PARCHE DC107-40 NINGBO	0.93722	0.06278	0.063	S/. 231.11	9823	S/. 353.63	1.53	0.02736	0.062778038	S/. 6.32
PARCHE DC110-52 NINGBO	0.89132	0.10868	0.109	S/. 686.79	5851	S/. 844.88	1.23	0.052737	0.21735965	S/. 72.44
PARCHE CP-501 DE LONA NINGBO	0.82769	0.17231	0.172	S/. 222.82	200	S/. 212.00	0.95	0.091556	0.344624578	S/. 40.80
PARCHE CP-502 DE LONA NINGBO	0.89097	0.10903	0.109	S/. 113.48	94	S/. 141.00	1.23	0.052737	0.21806117	S/. 11.97
PARCHE CP-503 DE LONA NINGBO	0.85429	0.14571	0.146	S/. 82.53	56	S/. 87.36	1.05	0.07568	0.145711854	S/. 6.25
PARCHE DC107-52 NINGBO	0.89141	0.10859	0.109	S/. 255.50	3446	S/. 314.28	1.23	0.052737	0.108589921	S/. 13.47
PARCHE DC107-65 NINGBO	0.90800	0.09200	0.092	S/. 29.37	229	S/. 39.16	1.33	0.0427	0.183991822	S/. 2.51
PARCHE DC107-75 NINGBO	0.88000	0.12000	0.120	S/. 120.92	635	S/. 142.88	1.18	0.058443	0.239991993	S/. 14.13
PARCHE DC108-34X24 NINGBO	0.87461	0.12539	0.125	S/. 141.31	114	S/. 163.82	1.15	0.062103	0.250786404	S/. 17.55
PARCHE DC108-72X40 NINGBO	0.86834	0.13166	0.132	S/. 68.26	53	S/. 77.33	1.12	0.065949	0.13166418	S/. 4.50
PARCHE DC110-75 NINGBO	0.80396	0.19604	0.196	S/. 200.79	665	S/. 170.71	0.85	0.109972	0.196038014	S/. 22.08
PARCHE CP-401 CLASSIC	0.94874	0.05126	0.051	S/. 452.95	13757	S/. 742.88	1.64	0.021137	0.102518688	S/. 19.15
PARCHE CP-201 CLASSIC	0.79781	0.20219	0.202	S/. 11.52	416	S/. 9.57	0.83	0.113981	0.050547922	S/. 0.33
PARCHE CP-202 CLASSIC	0.87611	0.12389	0.124	S/. 73.00	2117	S/. 84.68	1.16	0.060863	0.12388969	S/. 4.44
PARCHE CP-203 CLASSIC	0.86954	0.13046	0.130	S/. 55.69	1085	S/. 62.93	1.13	0.064646	0.130458424	S/. 3.60
PARCHE CP-402 CLASSIC	0.90192	0.09808	0.098	S/. 160.78	2561	S/. 207.44	1.29	0.046504	0.196153127	S/. 14.95
PARCHE CP-403 CLASSIC	0.84564	0.15436	0.154	S/. 79.62	643	S/. 81.34	1.02	0.08019	0.308714935	S/. 12.77
<b>0.80</b>			<b>TOTAL</b>	<b>S/. 88,476.82</b>	<b>TOTAL</b>	<b>S/. 87,195.72</b>	<b>TOTAL</b>	<b>80.59500381</b>	<b>S/. 31,381.91</b>	

PRODUCTO	PROPUESTA 1 (K-balanceada)						
	K-Balanceado	INVENTARIO DE SEGURIDAD (UNID)	INVENTARIO DE SEGURIDAD (S./.)	pu(k-bal)	Gu(k-bal)	N° ESPERADO DE STOCKOUTS/AÑO	VALOR ESPERADO DE COSTO DE FALTANTES (S./AÑO)
PARCHE DC107-25 NINGBO	0.99	16199	S/. 369.34	0.161087	0.084914	0.161087	S/. 31.68
PARCHE DC107-30 NINGBO	0.99	13741	S/. 556.51	0.161087	0.084914	0.322174	S/. 95.46
PARCHE DC107-40 NINGBO	0.99	6356	S/. 228.82	0.161087	0.084914	0.161087	S/. 19.62
PARCHE DC110-52 NINGBO	0.99	4709	S/. 679.98	0.161087	0.084914	0.322174	S/. 116.64
PARCHE CP-501 DE LONA NINGBO	0.99	209	S/. 221.54	0.161087	0.084914	0.322174	S/. 37.84
PARCHE CP-502 DE LONA NINGBO	0.99	75	S/. 112.50	0.161087	0.084914	0.322174	S/. 19.27
PARCHE CP-503 DE LONA NINGBO	0.99	53	S/. 82.68	0.161087	0.084914	0.161087	S/. 7.01
PARCHE DC107-52 NINGBO	0.99	2774	S/. 252.99	0.161087	0.084914	0.161087	S/. 21.70
PARCHE DC107-65 NINGBO	0.99	171	S/. 29.24	0.161087	0.084914	0.322174	S/. 4.99
PARCHE DC107-75 NINGBO	0.99	533	S/. 119.93	0.161087	0.084914	0.322174	S/. 20.54
PARCHE DC108-34X24 NINGBO	0.99	98	S/. 140.83	0.161087	0.084914	0.322174	S/. 24.00
PARCHE DC108-72X40 NINGBO	0.99	47	S/. 68.57	0.161087	0.084914	0.161087	S/. 5.80
PARCHE DC110-75 NINGBO	0.99	775	S/. 198.94	0.161087	0.084914	0.161087	S/. 17.05
PARCHE CP-401 CLASSIC	0.99	8305	S/. 448.47	0.161087	0.084914	0.322174	S/. 76.92
PARCHE CP-201 CLASSIC	0.99	496	S/. 11.41	0.161087	0.084914	0.04027175	S/. 0.24
PARCHE CP-202 CLASSIC	0.99	1807	S/. 72.28	0.161087	0.084914	0.161087	S/. 6.20
PARCHE CP-203 CLASSIC	0.99	951	S/. 55.16	0.161087	0.084914	0.161087	S/. 4.73
PARCHE CP-402 CLASSIC	0.99	1966	S/. 159.25	0.161087	0.084914	0.322174	S/. 27.31
PARCHE CP-403 CLASSIC	0.99	624	S/. 78.94	0.161087	0.084914	0.322174	S/. 13.52
<b>TOTAL</b>			<b>S/. 89,080.78</b>	<b>TOTAL</b>	<b>76.57069186</b>	<b>S/. 30,293.64</b>	



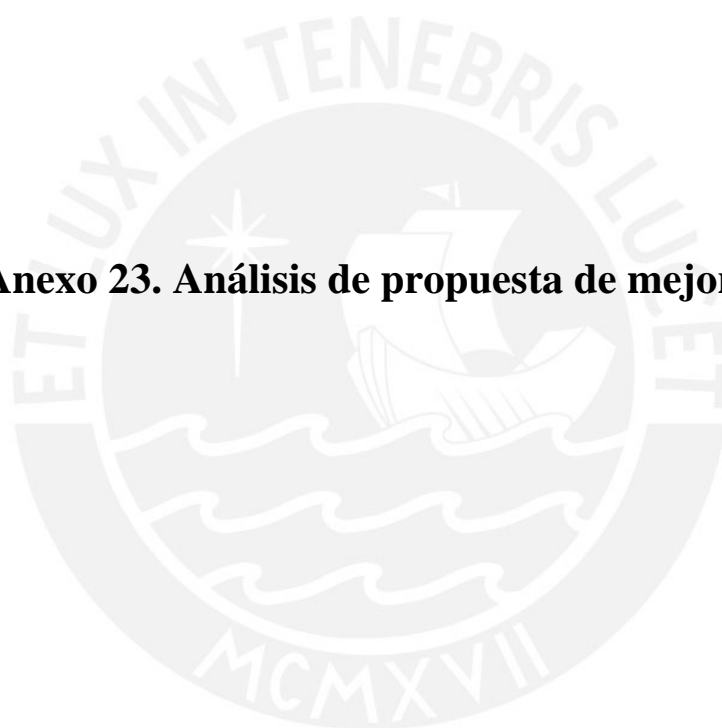
PRODUCTO	PROPUESTA 2 (K-prop)						
	K-Propuesto	INVENTARIO DE SEGURIDAD (UNID)	INVENTARIO DE SEGURIDAD (S/.)	pu(k-bal)	Gu(k-bal)	N° ESPERADO DE STOCKOUTS/AÑO	VALOR ESPERADO DE COSTO DE FALTANTES (S./AÑO)
PARCHE DC107-25 NINGBO	1.10	17999	S/. 410.38	0.135666	0.068619	0.135666	S/. 25.60
PARCHE DC107-30 NINGBO	1.10	15268	S/. 618.35	0.135666	0.068619	0.271332	S/. 77.14
PARCHE DC107-40 NINGBO	1.10	7062	S/. 254.23	0.135666	0.068619	0.135666	S/. 15.86
PARCHE DC110-52 NINGBO	1.10	5232	S/. 755.50	0.135666	0.068619	0.271332	S/. 94.25
PARCHE CP-501 DE LONA NINGBO	1.10	232	S/. 245.92	0.135666	0.068619	0.271332	S/. 30.58
PARCHE CP-502 DE LONA NINGBO	1.10	84	S/. 126.00	0.135666	0.068619	0.271332	S/. 15.57
PARCHE CP-503 DE LONA NINGBO	1.10	59	S/. 92.04	0.135666	0.068619	0.135666	S/. 5.66
PARCHE DC107-52 NINGBO	1.10	3082	S/. 281.08	0.135666	0.068619	0.135666	S/. 17.53
PARCHE DC107-65 NINGBO	1.10	189	S/. 32.32	0.135666	0.068619	0.271332	S/. 4.03
PARCHE DC107-75 NINGBO	1.10	592	S/. 133.20	0.135666	0.068619	0.271332	S/. 16.59
PARCHE DC108-34X24 NINGBO	1.10	109	S/. 156.63	0.135666	0.068619	0.271332	S/. 19.39
PARCHE DC108-72X40 NINGBO	1.10	52	S/. 75.87	0.135666	0.068619	0.135666	S/. 4.68
PARCHE DC110-75 NINGBO	1.10	861	S/. 221.02	0.135666	0.068619	0.135666	S/. 13.78
PARCHE CP-401 CLASSIC	1.10	9227	S/. 498.26	0.135666	0.068619	0.271332	S/. 62.16
PARCHE CP-201 CLASSIC	1.10	551	S/. 12.67	0.135666	0.068619	0.0339165	S/. 0.20
PARCHE CP-202 CLASSIC	1.10	2008	S/. 80.32	0.135666	0.068619	0.135666	S/. 5.01
PARCHE CP-203 CLASSIC	1.10	1057	S/. 61.31	0.135666	0.068619	0.135666	S/. 3.82
PARCHE CP-402 CLASSIC	1.10	2184	S/. 176.90	0.135666	0.068619	0.271332	S/. 22.07
PARCHE CP-403 CLASSIC	1.10	693	S/. 87.66	0.135666	0.068619	0.271332	S/. 10.93
<b>TOTAL</b>			<b>S/. 99,282.75</b>		<b>TOTAL</b>	<b>64.48713728</b>	<b>S/. 24,480.29</b>

**Nota: Solo se presentan los primeros 20 valores de la Clase C. Se ejecutó el mismo procedimiento con los 134 ítems restantes.**

	INV. SEGURIDAD (S/.)	Índice de costo de posesión	COSTO MANTENER SS	COSTO POR FALTANTES	COSTO TOTAL	NIVEL DE SERVICIO
<b>SITUACIÓN K-Óptimo</b>	S/. 87,195.72	21.21%	S/. 18,495.36	S/. 31,381.91	S/. 49,877.27	VARIABLE
<b>SITUACIÓN K-Balanceado</b>	S/. 89,080.78	21.21%	S/. 18,895.21	S/. 30,293.64	S/. 49,188.85	83.9%
<b>SITUACIÓN K-Propuesto</b>	S/. 99,282.75	21.21%	S/. 21,059.18	S/. 24,480.29	<b>S/. 45,539.47</b>	<b>86.4%</b>

<b>K-propuesto</b>	1.1
<b>Nivel de Servicio (P1)</b>	86.4%
<b>Nivel de Servicio (P2)</b>	95.50%

## Anexo 23. Análisis de propuesta de mejora



### Anexo 23.1. Consolidado de las propuestas de mejora

AUTOR: JAHIR JERI  
TIEMPO DE VALIDEZ: 2 AÑOS

PRODUCTO	CLASIFICACIÓN	MÉTODOS DE PRONÓSTICOS		GESTIÓN DE INVENTARIOS		
		CORTO PLAZO	MEDIANO PLAZO	R	CSL	K
PARCHE SCHRADER SBR1	A	ESTACIONAL - MULTIPLICATIVO		2	97.9%	2.04
PARCHE VIPAL R-01	A	ESTACIONAL - MULTIPLICATIVO		1	97.9%	2.04
PARCHE VIPAL VD1	A	ESTACIONAL - MULTIPLICATIVO		1	97.9%	2.04
CAMARA 300-18 S & M TR-4	A	ESTACIONAL - MULTIPLICATIVO		3	97.9%	2.04
CAMARA 300-18 SWALLOW TR4	A	ESTACIONAL - MULTIPLICATIVO		2	97.9%	2.04
CAMARA FR-13 SUPER BULL PREMIUN TR-13	A	ESTACIONAL - MULTIPLICATIVO		1	97.9%	2.04
PARCHE DC110-30 NINGBO	A	ESTACIONAL - MULTIPLICATIVO		3	97.9%	2.04
PARCHE SCHRADER SBMC2	A	ESTACIONAL - MULTIPLICATIVO		2	97.9%	2.04
PARCHE SCHRADER SBR0	A	ESTACIONAL - MULTIPLICATIVO		2	97.9%	2.04
PARCHE VIPAL R-00	A	SES	AJUSTE EXPONENCIAL	1	97.9%	2.04
CAMARA 700-16 SUPER BULL PREMIUN TR177A	A	SES	AJUSTE EXPONENCIAL	1	97.9%	2.04
CAMARA 750-16 SUPER BULL PREMIUN TR177A	A	SED	AJUSTE CUADRATICO	1	97.9%	2.04
CAMARA 825-16 SUPER BULL PREMIUN TR177A	A	SES	AJUSTE EXPONENCIAL	1	97.9%	2.04
CAMARA ER-12 SUPER BULL PREMIUN TR-13	A	ESTACIONAL - MULTIPLICATIVO		1	97.9%	2.04
CAMARA FR-14 SUPER BULL PREMIUN TR-13	A	ESTACIONAL - MULTIPLICATIVO		1	97.9%	2.04
CAMARA KR-15 SUPER BULL PREMIUN TR-13	A	ESTACIONAL - MULTIPLICATIVO		1	97.9%	2.04
CAMARA KR-16 SUPER BULL PREMIUN TR-13	A	ESTACIONAL - MULTIPLICATIVO		1	97.9%	2.04
PARCHE M-48 EVERWINNER	A	ESTACIONAL - MULTIPLICATIVO		3	97.9%	2.04
PARCHE SCHRADER SBMC3	A	ESTACIONAL - MULTIPLICATIVO		2	97.9%	2.04
PARCHE SCHRADER SBR2	A	ESTACIONAL - MULTIPLICATIVO		2	97.9%	2.04
PARCHE SCHRADER SBRC10	A	SES	CUADRATICO	2	97.9%	2.04
PARCHE VIPAL VD2	A	VER LP	EXPONENCIAL	1	97.9%	2.04
CAMARA 300-18 HUNG-A TR-4	B	SES	EXPONENCIAL	2	92.9%	1.47
CAMARA 300-18 KENDA TR-4	B	SED	EXPONENCIAL	1	92.9%	1.47
CAMARA 400-8 SWALLOW TR87C	B	SES	EXPONENCIAL	2	92.9%	1.47
PARCHE DC110-40 NINGBO	B	SES	EXPONENCIAL	3	92.9%	1.47
PARCHE SCHRADER SBF1	B	SES	EXPONENCIAL	2	92.9%	1.47
PARCHE SCHRADER SBF2	B	SED	EXPONENCIAL	2	92.9%	1.47
PARCHE SCHRADER SBF3	B	SES	EXPONENCIAL	2	92.9%	1.47
PARCHE SCHRADER SBMC4	B	SES	EXPONENCIAL	2	92.9%	1.47
PARCHE SCHRADER SBMC5	B	SES	EXPONENCIAL	2	92.9%	1.47
PARCHE SCHRADER SBR3	B	SES	EXPONENCIAL	2	92.9%	1.47
PARCHE SCHRADER SBRB1	B	SED	EXPONENCIAL	2	92.9%	1.47
PARCHE VIPAL R-02	B	SES	EXPONENCIAL	1	92.9%	1.47
PARCHE VIPAL R-03	B	SES	EXPONENCIAL	1	92.9%	1.47
PARCHE VIPAL R-04	B	SES	EXPONENCIAL	1	92.9%	1.47
PARCHE VIPAL RBM-01	B	SES	EXPONENCIAL	2	92.9%	1.47
CAMARA 1200R20 SUPER BULL PREMIUN TR78A	B	SES	EXPONENCIAL	1	92.9%	1.47
CAMARA 300-17 SWALLOW TR4	B	SES	EXPONENCIAL	2	92.9%	1.47
CAMARA 410-18 SWALLOW TR-4	B	SED	EXPONENCIAL	2	92.9%	1.47
CAMARA 700-15 SUPER BULL PREMIUN TR177A	B	SED	EXPONENCIAL	2	92.9%	1.47
CAMARA KR-14 SUPER BULL PREMIUN TR-13	B	SES	EXPONENCIAL	2	92.9%	1.47
PARCHE COLD PATCH L-24	B	SES	EXPONENCIAL	1	92.9%	1.47
PARCHE SCHRADER SBMC6	B	SES	EXPONENCIAL	2	92.9%	1.47
PARCHE SCHRADER SBR4	B	SES	EXPONENCIAL	2	92.9%	1.47
PARCHE SCHRADER SBRC12	B	SED	EXPONENCIAL	2	92.9%	1.47
PARCHE SCHRADER SBRC14	B	SES	EXPONENCIAL	2	92.9%	1.47
PARCHE SCHRADER SBRC40	B	SED	EXPONENCIAL	2	92.9%	1.47
PARCHE VIPAL RAC10	B	SES	EXPONENCIAL	1	92.9%	1.47
PARCHE VIPAL VD3	B	SES	EXPONENCIAL	1	92.9%	1.47

PARCHE VIPAL VD4	B	SED	EXPONENCIAL	1	92.9%	1.47
PARCHE VIPAL VD5	B	SED	EXPONENCIAL	1	92.9%	1.47
PARCHE VIPAL VF-8	B	SED	EXPONENCIAL	1	92.9%	1.47
CAMARA 1100-20 SUPER BULL PREMIUN TR78A	C	SES	NO APLICA	1	86.4%	1.1
CAMARA 1100R20 SUPER BULL PREMIUN TR78A	C	SES	NO APLICA	2	86.4%	1.1
CAMARA 275-18 SWALLOW TR4	C	SES	NO APLICA	2	86.4%	1.1
CAMARA 300-21 SWALLOW TR-4	C	SES	NO APLICA	2	86.4%	1.1
CAMARA 400-8 SUPER BULL PREMIUN TR87C	C	SES	NO APLICA	2	86.4%	1.1
CAMARA 650-16 SUPER BULL PREMIUN TR177A	C	SES	NO APLICA	2	86.4%	1.1
CAMARA ER-13 SUPER BULL PREMIUN TR13	C	SES	NO APLICA	2	86.4%	1.1
PARCHE CP-401 CLASSIC	C	SES	NO APLICA	6	86.4%	1.1
PARCHE DC107-25 NINGBO	C	SES	NO APLICA	12	86.4%	1.1
PARCHE DC107-30 NINGBO	C	SES	NO APLICA	6	86.4%	1.1
PARCHE DC107-40 NINGBO	C	SES	NO APLICA	12	86.4%	1.1
PARCHE DC110-52 NINGBO	C	SES	NO APLICA	6	86.4%	1.1
PARCHE SCHRADER SBR5	C	SES	NO APLICA	4	86.4%	1.1
PARCHE SCHRADER SBRC20	C	SES	NO APLICA	2	86.4%	1.1
PARCHE VIPAL RAC12	C	SES	NO APLICA	1	86.4%	1.1
PARCHE VIPAL RT-3	C	SES	NO APLICA	2	86.4%	1.1
PARCHE VIPAL VD6	C	SES	NO APLICA	1	86.4%	1.1
CAMARA 400-8ARL TR 87C	C	SES	NO APLICA	5	86.4%	1.1
CAMARA 1000-20 SUPER BULL PREMIUN TR78A	C	SES	NO APLICA	2	86.4%	1.1
CAMARA 1000R20 SUPER BULL PREMIUN TR78A	C	SES	NO APLICA	2	86.4%	1.1
CAMARA 1100-20 CONCORD PLUS TR78A	C	SES	NO APLICA	4	86.4%	1.1
CAMARA 1100-20ARL TR78A	C	SES	NO APLICA	5	86.4%	1.1
CAMARA 1100R22 SUPER BULL PREMIUN TR78A	C	SES	NO APLICA	8	86.4%	1.1
CAMARA 11L-16 SUPER BULL PREMIUN TR15	C	SES	NO APLICA	16	86.4%	1.1
CAMARA 12.5/80-18 SUPER BULL PREMIUN TR21	C	SES	NO APLICA	4	86.4%	1.1
CAMARA 1200-20 CONCORD PLUS	C	SES	NO APLICA	4	86.4%	1.1
CAMARA 1200-20 SUPER BULL PREMIUN TR78A	C	SES	NO APLICA	2	86.4%	1.1
CAMARA 1200-20ARL TR78A	C	SES	NO APLICA	5	86.4%	1.1
CAMARA 1200-24 SUPER BULL PREMIUN TR78A	C	SES	NO APLICA	4	86.4%	1.1
CAMARA 14.9/13-24 SUPER BULL PREMIUN TR 2	C	SES	NO APLICA	16	86.4%	1.1
CAMARA 14.9/13-28 SUPER BULL PREMIUN	C	SES	NO APLICA	8	86.4%	1.1
CAMARA 1400-24 TR179A SUPER BULL PREMIUM	C	SES	NO APLICA	8	86.4%	1.1
CAMARA 18.4/15-38 SUPER BULL PREMIUN TR2	C	SES	NO APLICA	8	86.4%	1.1
CAMARA 19.5-24 SUPER BULL PREMIUM TR218A	C	SES	NO APLICA	4	86.4%	1.1
CAMARA 20.5-25 SUPER BULL PREMIUN TRJ1175	C	SES	NO APLICA	8	86.4%	1.1
CAMARA 20.8 X 38 NEXEN TR218A	C	SES	NO APLICA	4	86.4%	1.1
CAMARA 23.5-25 SUPER BULL PREMIUN TRJ1175	C	SES	NO APLICA	4	86.4%	1.1
CAMARA 26.5-25 SUPER BULL PREMIUN TRJ1175	C	SES	NO APLICA	8	86.4%	1.1
CAMARA 275/300-17 GOSTONE TR 4	C	SES	NO APLICA	4	86.4%	1.1
CAMARA 275/300-17FORTUNE TR-4	C	SES	NO APLICA	8	86.4%	1.1
CAMARA 275-18 DURO TR-4	C	SES	NO APLICA	4	86.4%	1.1
CAMARA 275-18 KENDA TR-4	C	SES	NO APLICA	8	86.4%	1.1
CAMARA 275-18 S & M TR-4	C	SES	NO APLICA	6	86.4%	1.1
CAMARA 300-17 HUNG-A TR-4	C	SES	NO APLICA	4	86.4%	1.1
CAMARA 300-17 KENDA TR-4	C	SES	NO APLICA	2	86.4%	1.1
CAMARA 300-17 S & M TR-4	C	SES	NO APLICA	6	86.4%	1.1
CAMARA 300-18ARL TR-4	C	SES	NO APLICA	5	86.4%	1.1
CAMARA 300-21 KENDA TR-4	C	SES	NO APLICA	8	86.4%	1.1
CAMARA 350-8 S & M TR87C	C	SES	NO APLICA	12	86.4%	1.1
CAMARA 350-8 SWALLOW TR87C	C	SES	NO APLICA	8	86.4%	1.1
CAMARA 400-8 GOSTONE TR 87C	C	SES	NO APLICA	2	86.4%	1.1
CAMARA 400-8 KENDA TR87C	C	SES	NO APLICA	2	86.4%	1.1

CAMARA 400-8 S & M TR87C	C	SES	NO APLICA	3	86.4%	1.1
CAMARA 400-8 SUPER BULL PREMIUM TR-13	C	SES	NO APLICA	4	86.4%	1.1
CAMARA 400-8 TRULPER TR 87C	C	SES	NO APLICA	4	86.4%	1.1
CAMARA 400-8M MARELY	C	SES	NO APLICA	16	86.4%	1.1
CAMARA 410-18 GOSTONE	C	SES	NO APLICA	8	86.4%	1.1
CAMARA 410-18 KENDA TR-4	C	SES	NO APLICA	4	86.4%	1.1
CAMARA 410-18 S & M TR-4	C	SES	NO APLICA	6	86.4%	1.1
CAMARA 700-15 CAMEL	C	SES	NO APLICA	4	86.4%	1.1
CAMARA 700-15CP CONCORD PLUS TR 177A	C	SES	NO APLICA	4	86.4%	1.1
CAMARA 700-16 CONCORD PLUS	C	SES	NO APLICA	2	86.4%	1.1
CAMARA 700X16 NEXEN	C	SES	NO APLICA	2	86.4%	1.1
CAMARA 750-16 CAMELL TR177A	C	SES	NO APLICA	2	86.4%	1.1
CAMARA 750-16D DIAMOND	C	SES	NO APLICA	8	86.4%	1.1
CAMARA 750-16-R SUPER BULL PREMIUN REFOR	C	SES	NO APLICA	4	86.4%	1.1
CAMARA 750X16 NEXEN	C	SES	NO APLICA	2	86.4%	1.1
CAMARA 825-20 SUPER BULL PREMIUN TR177A	C	SES	NO APLICA	4	86.4%	1.1
CAMARA 825-20C CONCORD PLUS TR177A	C	SES	NO APLICA	16	86.4%	1.1
CAMARA 900-20 SUPER BULL PREMIUN TR175A	C	SES	NO APLICA	4	86.4%	1.1
CAMARA DE BICICLETA 20X1.90/2.125 CST ARO 2	C	SES	NO APLICA	8	86.4%	1.1
CAMARA DE BICICLETA 24X1.90/2.125 CST ARO 2	C	SES	NO APLICA	8	86.4%	1.1
CAMARA DE BICICLETA 26X1.90/2.125 CST ARO 2	C	SES	NO APLICA	4	86.4%	1.1
CAMARA ER-12 CAMELL TR13	C	SES	NO APLICA	8	86.4%	1.1
CAMARA ER-12 NEXEN TR-13	C	SES	NO APLICA	4	86.4%	1.1
CAMARA ER-12C CONCORD PLUS TR13	C	SES	NO APLICA	2	86.4%	1.1
CAMARA ER-15 DIAMOND TR-13	C	SES	NO APLICA	4	86.4%	1.1
CAMARA FR12 ARL	C	SES	NO APLICA	5	86.4%	1.1
CAMARA FR13 ARL	C	SES	NO APLICA	5	86.4%	1.1
CAMARA FR-13 NEXEN TR13	C	SES	NO APLICA	4	86.4%	1.1
CAMARA FR-14CP CONCORD PLUS TR 13	C	SES	NO APLICA	4	86.4%	1.1
CAMARA FR-15 DIAMOND	C	SES	NO APLICA	2	86.4%	1.1
CAMARA GR-13 CONCORD PLUS TR-13	C	SES	NO APLICA	8	86.4%	1.1
CAMARA GR-14 SUPER BULL PREMIUN TR-13	C	SES	NO APLICA	2	86.4%	1.1
CAMARA KR-15 NEXEN TR-13	C	SES	NO APLICA	16	86.4%	1.1
CAMARA KR-15 SUPER BULL TR177A	C	SES	NO APLICA	8	86.4%	1.1
CAMARA KR-16C CAMELL TR13	C	SES	NO APLICA	16	86.4%	1.1
CAMARA KR-16CP CONCORD PLUS TR177A	C	SES	NO APLICA	4	86.4%	1.1
PARCHE COLD PATCH S-48	C	SES	NO APLICA	2	86.4%	1.1
PARCHE COLD PATCH YP3-219	C	SES	NO APLICA	32	86.4%	1.1
PARCHE COLD PATCH YP3-221	C	SES	NO APLICA	16	86.4%	1.1
PARCHE CP-201 CLASSIC	C	SES	NO APLICA	48	86.4%	1.1
PARCHE CP-202 CLASSIC	C	SES	NO APLICA	12	86.4%	1.1
PARCHE CP-203 CLASSIC	C	SES	NO APLICA	12	86.4%	1.1
PARCHE CP-402 CLASSIC	C	SES	NO APLICA	6	86.4%	1.1
PARCHE CP-403 CLASSIC	C	SES	NO APLICA	6	86.4%	1.1
PARCHE CP-404 CLASSIC	C	SES	NO APLICA	12	86.4%	1.1
PARCHE CP-501 DE LONA NINGBO	C	SES	NO APLICA	6	86.4%	1.1
PARCHE CP-502 DE LONA NINGBO	C	SES	NO APLICA	6	86.4%	1.1
PARCHE CP-503 DE LONA NINGBO	C	SES	NO APLICA	12	86.4%	1.1
PARCHE DC107-52 NINGBO	C	SES	NO APLICA	12	86.4%	1.1
PARCHE DC107-65 NINGBO	C	SES	NO APLICA	6	86.4%	1.1
PARCHE DC107-75 NINGBO	C	SES	NO APLICA	6	86.4%	1.1
PARCHE DC108-34X24 NINGBO	C	SES	NO APLICA	6	86.4%	1.1
PARCHE DC108-72X40 NINGBO	C	SES	NO APLICA	12	86.4%	1.1
PARCHE DC110-75 NINGBO	C	SES	NO APLICA	12	86.4%	1.1
PARCHE EWQ-09 CLASSIC	C	SES	NO APLICA	6	86.4%	1.1

PARCHE P-2 PANESA	C	SES	NO APLICA	8	86.4%	1.1
PARCHE PARA PISCINA #62068 EN STICKERS	C	SES	NO APLICA	16	86.4%	1.1
PARCHE PARA PISCINA 59632 NP	C	SES	NO APLICA	8	86.4%	1.1
PARCHE REM-00 RUZI	C	SES	NO APLICA	32	86.4%	1.1
PARCHE REM-01 RUZI	C	SES	NO APLICA	8	86.4%	1.1
PARCHE REM-02 RUZI	C	SES	NO APLICA	64	86.4%	1.1
PARCHE REM-03 RUZI	C	SES	NO APLICA	16	86.4%	1.1
PARCHE REM-04 RUZI	C	SES	NO APLICA	16	86.4%	1.1
PARCHE SCHRADER SBMC7	C	SES	NO APLICA	2	86.4%	1.1
PARCHE SCHRADER SBMC8	C	SES	NO APLICA	2	86.4%	1.1
PARCHE SCHRADER SBMC9	C	SES	NO APLICA	8	86.4%	1.1
PARCHE SCHRADER SBR10	C	SES	NO APLICA	4	86.4%	1.1
PARCHE SCHRADER SBR6	C	SES	NO APLICA	4	86.4%	1.1
PARCHE SCHRADER SBR7	C	SES	NO APLICA	4	86.4%	1.1
PARCHE SCHRADER SBR8	C	SES	NO APLICA	4	86.4%	1.1
PARCHE SCHRADER SBRB2	C	SES	NO APLICA	4	86.4%	1.1
PARCHE SCHRADER SBRC22	C	SES	NO APLICA	4	86.4%	1.1
PARCHE SCHRADER SBRC24	C	SES	NO APLICA	8	86.4%	1.1
PARCHE SCHRADER SBRC42	C	SES	NO APLICA	2	86.4%	1.1
PARCHE SCHRADER SBRC44	C	SES	NO APLICA	4	86.4%	1.1
PARCHE TFMD-02 TIREFIX	C	SES	NO APLICA	4	86.4%	1.1
PARCHE TFMD-03 TIREFIX	C	SES	NO APLICA	4	86.4%	1.1
PARCHE TFMD-04 TIREFIX	C	SES	NO APLICA	8	86.4%	1.1
PARCHE TFMD-05 TIREFIX	C	SES	NO APLICA	8	86.4%	1.1
PARCHE TFRC-110 TIREFIX	C	SES	NO APLICA	4	86.4%	1.1
PARCHE TFRC-112 TIREFIX	C	SES	NO APLICA	4	86.4%	1.1
PARCHE TFRC-114 TIREFIX	C	SES	NO APLICA	4	86.4%	1.1
PARCHE TFRC-120 TIREFIX	C	SES	NO APLICA	8	86.4%	1.1
PARCHE VD10 VIPAL	C	SES	NO APLICA	2	86.4%	1.1
PARCHE VF-3 VIPAL	C	SES	NO APLICA	4	86.4%	1.1
PARCHE VIPAL R-05	C	SES	NO APLICA	2	86.4%	1.1
PARCHE VIPAL R-06	C	SES	NO APLICA	4	86.4%	1.1
PARCHE VIPAL RAC08	C	SES	NO APLICA	4	86.4%	1.1
PARCHE VIPAL RAC14	C	SES	NO APLICA	2	86.4%	1.1
PARCHE VIPAL RAC20	C	SES	NO APLICA	2	86.4%	1.1
PARCHE VIPAL RAC22	C	SES	NO APLICA	4	86.4%	1.1
PARCHE VIPAL RAC24	C	SES	NO APLICA	16	86.4%	1.1
PARCHE VIPAL RAC25	C	SES	NO APLICA	4	86.4%	1.1
PARCHE VIPAL RAC35	C	SES	NO APLICA	2	86.4%	1.1
PARCHE VIPAL RAC40	C	SES	NO APLICA	2	86.4%	1.1
PARCHE VIPAL RAC42	C	SES	NO APLICA	8	86.4%	1.1
PARCHE VIPAL RAC44	C	SES	NO APLICA	8	86.4%	1.1
PARCHE VIPAL RBM-02	C	SES	NO APLICA	8	86.4%	1.1
PARCHE VIPAL VD7	C	SES	NO APLICA	2	86.4%	1.1
PARCHE VIPAL VD8	C	SES	NO APLICA	2	86.4%	1.1
PARCHE VIPAL VD9	C	SES	NO APLICA	8	86.4%	1.1
PARCHE VIPAL VF-6	C	SES	NO APLICA	2	86.4%	1.1

### Anexo 23.2. Situación Actual – Parche Schrader SBR1

**ARTÍCULO: PARCHESCHRADER SBR1**

NOTA: TODOS LOS VALORES SE AJUSTARON A LAS UNIDADES SEMANALES

<b>D SEMANAL</b>	5406.67
<b>LT (SEMANAS)</b>	8.00

REAL 2015	
Demanda Mensual	Demanda semanal
19875	4969
24101	6026
18295	4574
27320	6830
15072	3768
25089	6273

Costo de posesión (S./ur S/. 0.0006  
 Costo de orden (S./order) S/. 24.55  
 Costo revisión (S./SKU) S/. 12.72

Costo de posesión (%) 21.211%  
 Valor artículo (S./.) S/. 0.13

Tiempo entre revisión ( R) 1 Semanas  
 Inventario Inicial 2015 120877

DEMANDA

COMPORTAMIENTO REAL 6 MESES (24 SEMANAS)

DEMANDA REAL	Semana	Inventario Inicial	Demanda	Inventario Final	Revisión	Lanzar pedido?	Lote pedido	Lote recibido	Costo de mantener	Costo de pedir	Costo Revisión	Costo total	Inventario promedio
4969.00	1	120877	4969	115908	Sí	No	-	-	S/. 68.01	S/. -	S/. 12.72	S/. 80.73	118392.5
4969.00	2	115908	4969	110939	Sí	No	-	-	S/. 65.16	S/. -	S/. 12.72	S/. 77.88	113423.5
4969.00	3	110939	4969	105970	Sí	No	-	-	S/. 62.30	S/. -	S/. 12.72	S/. 75.02	108454.5
4969.00	4	105970	4969	101001	Sí	No	-	-	S/. 59.45	S/. -	S/. 12.72	S/. 72.17	103485.5
6026.0000	5	101001	6026	94975	Sí	No	-	-	S/. 56.29	S/. -	S/. 12.72	S/. 69.01	97988
6026.0000	6	94975	6026	88949	Sí	No	-	-	S/. 52.83	S/. -	S/. 12.72	S/. 65.55	91962
6026.0000	7	88949	6026	82923	Sí	No	-	-	S/. 49.37	S/. -	S/. 12.72	S/. 62.09	85936
6026.0000	8	82923	6026	76897	Sí	Sí	120000	-	S/. 45.91	S/. 24.55	S/. 12.72	S/. 83.18	79910
4574.0000	9	76897	4574	72323	Sí	No	-	-	S/. 42.86	S/. -	S/. 12.72	S/. 55.58	74610
4574.0000	10	72323	4574	67749	Sí	No	-	-	S/. 40.23	S/. -	S/. 12.72	S/. 52.95	70036
4574.0000	11	67749	4574	63175	Sí	No	-	-	S/. 37.61	S/. -	S/. 12.72	S/. 50.33	65462
4574.0000	12	63175	4574	58601	Sí	No	-	-	S/. 34.98	S/. -	S/. 12.72	S/. 47.70	60888
6830.0000	13	58601	6830	51771	Sí	No	-	-	S/. 31.70	S/. -	S/. 12.72	S/. 44.42	55186
6830.0000	14	51771	6830	44941	Sí	No	-	-	S/. 27.78	S/. -	S/. 12.72	S/. 40.50	48356
6830.0000	15	44941	6830	38111	Sí	No	-	-	S/. 23.86	S/. -	S/. 12.72	S/. 36.58	41526
6830.0000	16	158111	6830	151281	Sí	No	-	120000	S/. 88.87	S/. -	S/. 12.72	S/. 101.59	154696
3768.0000	17	151281	3768	147513	Sí	No	-	-	S/. 85.82	S/. -	S/. 12.72	S/. 98.54	149397
3768.0000	18	147513	3768	143745	Sí	No	-	-	S/. 83.66	S/. -	S/. 12.72	S/. 96.38	145629
3768.0000	19	143745	3768	139977	Sí	No	-	-	S/. 81.50	S/. -	S/. 12.72	S/. 94.22	141861
3768.0000	20	139977	3768	136209	Sí	No	-	-	S/. 79.33	S/. -	S/. 12.72	S/. 92.05	138093
6273.0000	21	136209	6273	129936	Sí	No	-	-	S/. 76.45	S/. -	S/. 12.72	S/. 89.17	133072.5
6273.0000	22	129936	6273	123663	Sí	No	-	-	S/. 72.84	S/. -	S/. 12.72	S/. 85.56	126799.5
6273.0000	23	123663	6273	117390	Sí	No	-	-	S/. 69.24	S/. -	S/. 12.72	S/. 81.96	120526.5
6273.0000	24	117390	6273	111117	Sí	No	-	-	S/. 65.64	S/. -	S/. 12.72	S/. 78.36	114253.5
<b>Averages</b>		<b>104367.67</b>	<b>5406.67</b>	<b>98961</b>	<b>24.00</b>		<b>120000</b>		<b>S/. 58.40</b>	<b>S/. 1.02</b>	<b>S/. 12.72</b>	<b>S/. 72.15</b>	<b>101664.3</b>
									<b>TOTAL</b>	<b>S/. 1,401.68</b>	<b>S/. 24.55</b>	<b>S/. 305.28</b>	<b>S/. 1,731.51</b>

### Anexo 23.3. Situación Propuesta – Parche Schrader SBR1

**ARTÍCULO: PARCHESCHRADER SBR1**

NOTA: TODOS LOS VALORES SE AJUSTARON A LAS UNIDADES SEMANALES

CSL	0.979
K	2.04
D ANUAL	261335.011
D SEMANAL	5444.48
LT (SEMANAS)	3.73
DESV. LT	0.93
DESV. PRON	1835.67
DESV. TOTAL	6196.926855

REAL 2015	
Demanda Mensual	Demanda semanal
19875	4969
24101	6026
18295	4574
27320	6830
15072	3768
25089	6273

Costo de posesión (S./unit/period)	S/. 0.00	Costo de posesión (%)	21.211%
Costo de orden (S./order)	S/. 63.55	Valor artículo (S/.)	S/. 0.13
Costo de revisión (S./SKU)	S/. 12.72		
Inventario Máximo (S)	76524		
Tiempo entre revisión ( R)	8	Semanas	
Inventario Inicial 2015	120877		
Nivel de Stock de Seguridad	12642		

DEMANDA

SIMULACIÓN 6 MESES (24 SEMANAS)

DEMANDA REAL
4969.00
4969.00
4969.00
4969.00
6026.0000
6026.0000
6026.0000
6026.0000
4574.0000
4574.0000
4574.0000
4574.0000
6830.0000
6830.0000
6830.0000
6830.0000
3768.0000
3768.0000
3768.0000
3768.0000
6273.0000
6273.0000
6273.0000
6273.0000

Semana	Inventario Inicial	Demanda	Inventario Final	Revisión	Lanzar pedido?	Lote pedido	Lote recibido	Costo de mantener	Costo de pedir	Costo Revisión	Costo total	Inventario promedio
1	120877	4969	115908	Sí	Sí	0	-	S/. 68.01	S/. 63.55	S/. 12.72	S/. 144.29	118392.5
2	115908	4969	110939	No	No	-	-	S/. 65.16	S/. -	S/. -	S/. 65.16	113423.5
3	110939	4969	105970	No	No	-	-	S/. 62.30	S/. -	S/. -	S/. 62.30	108454.5
4	105970	4969	101001	No	No	-	-	S/. 59.45	S/. -	S/. -	S/. 59.45	103485.5
5	101001	6026	94975	No	No	-	-	S/. 56.29	S/. -	S/. -	S/. 56.29	97988
6	94975	6026	88949	No	No	-	0	S/. 52.83	S/. -	S/. -	S/. 52.83	91962
7	88949	6026	82923	No	No	-	-	S/. 49.37	S/. -	S/. -	S/. 49.37	85936
8	82923	6026	76897	Sí	Sí	0	-	S/. 45.91	S/. 63.55	S/. 12.72	S/. 122.18	79910
9	76897	4574	72323	No	No	-	-	S/. 42.86	S/. -	S/. -	S/. 42.86	74610
10	72323	4574	67749	No	No	-	-	S/. 40.23	S/. -	S/. -	S/. 40.23	70036
11	67749	4574	63175	No	No	-	-	S/. 37.61	S/. -	S/. -	S/. 37.61	65462
12	63175	4574	58601	No	No	-	-	S/. 34.98	S/. -	S/. -	S/. 34.98	60888
13	58601	6830	51771	No	No	-	0	S/. 31.70	S/. -	S/. -	S/. 31.70	55186
14	51771	6830	44941	No	No	-	-	S/. 27.78	S/. -	S/. -	S/. 27.78	48356
15	44941	6830	38111	No	No	-	-	S/. 23.86	S/. -	S/. -	S/. 23.86	41526
16	38111	6830	31281	Sí	Sí	45243	-	S/. 19.93	S/. 63.55	S/. 12.72	S/. 96.21	34696
17	31281	3768	27513	No	No	-	-	S/. 16.89	S/. -	S/. -	S/. 16.89	29397
18	27513	3768	23745	No	No	-	-	S/. 14.72	S/. -	S/. -	S/. 14.72	25629
19	23745	3768	19977	No	No	-	-	S/. 12.56	S/. -	S/. -	S/. 12.56	21861
20	19977	3768	16209	No	No	-	-	S/. 10.39	S/. -	S/. -	S/. 10.39	18093
21	16209	6273	55179	No	No	-	45243	S/. 33.50	S/. -	S/. -	S/. 33.50	58315.5
22	55179	6273	48906	No	No	-	-	S/. 29.90	S/. -	S/. -	S/. 29.90	52042.5
23	48906	6273	42633	No	No	-	-	S/. 26.29	S/. -	S/. -	S/. 26.29	45769.5
24	42633	6273	36360	Sí	Sí	40164	-	S/. 22.69	S/. 63.55	S/. 12.72	S/. 98.96	39496.5
<b>Averages</b>	<b>66908.17</b>	<b>5406.67</b>	<b>61501.50</b>	<b>4.00</b>		<b>21351.75</b>		<b>S/. 36.88</b>	<b>S/. 10.59</b>	<b>S/. 2.12</b>	<b>S/. 49.60</b>	<b>64204.83</b>
TOTAL								S/. 885.21	S/. 254.21	S/. 50.88	S/. 1,190.31	



### Anexo 23.4. Situación Propuesta – Parche Schrader SBR1

ARTÍCULO: PARCHESCHRADER SBR1

NOTA: TODOS LOS VALORES SE AJUSTARON A LAS UNIDADES SEMANALES

CSL	0.979
K	2.04
D ANUAL	261335.011
D SEMANAL	5444.48
LT (SEMANAS)	3.73
DESV. LT	0.93
DESV. PRON	1835.67
DESV. TOTAL	6196.926855

PRONOSTICO LP	
Demanda Mensual	Demanda semanal
18972.7	4743.175
21839.85	5459.9625
19845.06	4961.265
27519.51	6879.8775
13917.93	3479.4825
24433.17	6108.2925
26899.08	6724.77
20827.28	5206.82
33431.38	8357.845
3213.281	803.32025
24139.21	6034.8025
26296.56	6574.14

Costo de posesión (S./unit/period)	S/. 0.00	Costo de posesión (%)	21.211%
Costo de orden (S./order)	S/. 63.55	Valor artículo (S/.)	S/. 0.13
Costo de revisión (S./SKU)	S/. 12.72		
Inventario Máximo (S)	76524		
Tiempo entre revisión ( R)	8	Semanas	
Inventario Inicial 2015	120877		
Nivel de Stock de Seguridad	12642		

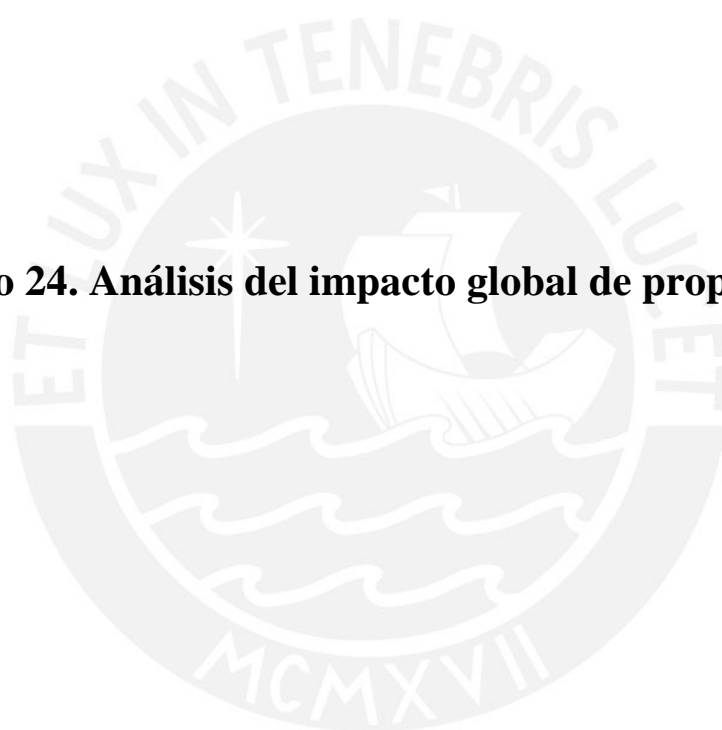
DEMANDA

COMPORTAMIENTO PREVISTO 6 MESES (24 SEMANAS)

DEMANDA PRONOSTICADA
4743.1750
4743.1750
4743.1750
4743.1750
5459.9625
5459.9625
5459.9625
5459.9625
5459.9625
4961.2650
4961.2650
4961.2650
4961.2650
6879.8775
6879.8775
6879.8775
6879.8775
3479.4825
3479.4825
3479.4825
3479.4825
6108.2925
6108.2925
6108.2925
6108.2925

Semana	Inventario Inicial	Demanda	Inventario Final	Revisión	Lanzar pedido?	Lote pedido	Lote recibido	Costo de mantener	Costo de pedir	Costo Revisión	Costo total	Inventario promedio
1	120877	4744	116133	Sí	Sí	0	-	S/. 68.08	S/. 63.55	S/. 12.72	S/. 144.35	118505
2	116133	4744	111389	No	No	-	-	S/. 65.35	S/. -	S/. -	S/. 65.35	113761
3	111389	4744	106645	No	No	-	-	S/. 62.63	S/. -	S/. -	S/. 62.63	109017
4	106645	4744	101901	No	No	-	-	S/. 59.90	S/. -	S/. -	S/. 59.90	104273
5	101901	5460	96441	No	No	-	-	S/. 56.97	S/. -	S/. -	S/. 56.97	99171
6	96441	5460	90981	No	No	-	0	S/. 53.83	S/. -	S/. -	S/. 53.83	93711
7	90981	5460	85521	No	No	-	-	S/. 50.70	S/. -	S/. -	S/. 50.70	88251
8	85521	5460	80061	Sí	Sí	0	-	S/. 47.56	S/. 63.55	S/. 12.72	S/. 123.83	82791
9	80061	4962	75099	No	No	-	-	S/. 44.57	S/. -	S/. -	S/. 44.57	77580
10	75099	4962	70137	No	No	-	-	S/. 41.72	S/. -	S/. -	S/. 41.72	72618
11	70137	4962	65175	No	No	-	-	S/. 38.87	S/. -	S/. -	S/. 38.87	67656
12	65175	4962	60213	No	No	-	-	S/. 36.02	S/. -	S/. -	S/. 36.02	62694
13	60213	6880	53333	No	No	-	0	S/. 32.61	S/. -	S/. -	S/. 32.61	56773
14	53333	6880	46453	No	No	-	-	S/. 28.66	S/. -	S/. -	S/. 28.66	49893
15	46453	6880	39573	No	No	-	-	S/. 24.71	S/. -	S/. -	S/. 24.71	43013
16	39573	6880	32693	Sí	Sí	43831	-	S/. 20.76	S/. 63.55	S/. 12.72	S/. 97.03	36133
17	32693	3480	29213	No	No	-	-	S/. 17.78	S/. -	S/. -	S/. 17.78	30953
18	29213	3480	25733	No	No	-	-	S/. 15.78	S/. -	S/. -	S/. 15.78	27473
19	25733	3480	22253	No	No	-	-	S/. 13.78	S/. -	S/. -	S/. 13.78	23993
20	22253	3480	18773	No	No	-	-	S/. 11.78	S/. -	S/. -	S/. 11.78	20513
21	62604	6109	56495	No	No	-	43831	S/. 34.21	S/. -	S/. -	S/. 34.21	59549.5
22	56495	6109	50386	No	No	-	-	S/. 30.70	S/. -	S/. -	S/. 30.70	53440.5
23	50386	6109	44277	No	No	-	-	S/. 27.19	S/. -	S/. -	S/. 27.19	47331.5
24	44277	6109	38168	Sí	Sí	38356	-	S/. 23.68	S/. 63.55	S/. 12.72	S/. 99.95	41222.5
<b>Averages</b>	<b>68482.75</b>	<b>5272.50</b>	<b>63210.25</b>	<b>4.00</b>		<b>20546.75</b>		<b>S/. 37.83</b>	<b>S/. 10.59</b>	<b>S/. 2.12</b>	<b>S/. 50.54</b>	<b>65846.50</b>
<b>TOTAL</b>								<b>S/. 907.85</b>	<b>S/. 254.21</b>	<b>S/. 50.88</b>	<b>S/. 1,212.94</b>	

## Anexo 24. Análisis del impacto global de propuestas



### Anexo 24.1. Desempeño de la gestión de inventarios actual

PRODUCTO	STOCK FINAL 2014	ROTURA DE STOCK (2014)	INVENTARIO PROMEDIO (UNID)	INVENTARIO PROMEDIO (S./)	DEMANDA ANUAL	INDICE DE ROTACIÓN	ESTADIA PROMEDIO (MESES)	LEAD TIME (MESES)	RIESGO DE ROTURA? (2015)	EXCEDENTES DE MESES EN INVENTARIO
CAMARA 400-8ARL TR 87C	203	NO	311.8	S/. 1,854.91	987	3.17	3.8	3	SÍ	NO
CAMARA 1000-20 SUPER BULL PREMIUN TR78A	104	NO	181.6	S/. 7,735.45	192	1.06	11.3	2	NO	SÍ
CAMARA 1000R20 SUPER BULL PREMIUN TR78A	42	NO	68.1	S/. 3,165.88	139	2.04	5.9	2	NO	SÍ
CAMARA 1100-20 CONCORD PLUS TR78A	17	NO	14.9	S/. 662.30	29	1.94	6.2	0.1	NO	SÍ
CAMARA 1100-20 SUPER BULL PREMIUN TR78A	305	NO	241.8	S/. 12,381.87	415	1.72	7.0	2	NO	SÍ
CAMARA 1100-20ARL TR78A	23	NO	54.5	S/. 2,005.60	180	3.30	3.6	3	SÍ	NO
CAMARA 1100R20 SUPER BULL PREMIUN TR78A	235	NO	159.1	S/. 8,351.88	272	1.71	7.0	2	NO	SÍ
CAMARA 1100R22 SUPER BULL PREMIUN TR78A	140	NO	140.7	S/. 7,624.13	14	0.10	120.6	2	NO	SÍ
CAMARA 11L-16 SUPER BULL PREMIUN TR15	221	NO	110.8	S/. 3,103.33	9	0.08	147.8	2	NO	SÍ
CAMARA 12.5/80-18 SUPER BULL PREMIUN TR218A	120	NO	70.6	S/. 2,823.33	40	0.57	21.2	2	NO	SÍ
CAMARA 1200-20 CONCORD PLUS	36	NO	31.6	S/. 1,768.67	51	1.61	7.4	0.1	NO	SÍ
CAMARA 1200-20 SUPER BULL PREMIUN TR78A	92	SÍ	30.6	S/. 1,700.43	138	4.51	2.7	2	NO	NO
CAMARA 1200-20ARL TR78A	75	NO	69.7	S/. 2,842.40	120	1.72	7.0	3	NO	SÍ
CAMARA 1200-24 SUPER BULL PREMIUN TR78A	23	NO	33.5	S/. 2,077.00	35	1.04	11.5	2	NO	SÍ
CAMARA 1200R20 SUPER BULL PREMIUN TR78A	205	NO	162.2	S/. 9,081.33	489	3.02	4.0	2	NO	NO
CAMARA 14.9/13-24 SUPER BULL PREMIUN TR 218A	16	NO	19.6	S/. 1,253.33	4	0.20	58.8	2	NO	SÍ
CAMARA 14.9/13-28 SUPER BULL PREMIUN	9	NO	14.4	S/. 1,059.63	13	0.90	13.3	2	NO	SÍ
CAMARA 1400-24 TR179A SUPER BULL PREMIUM	33	NO	35.6	S/. 2,971.21	11	0.31	38.8	2	NO	SÍ
CAMARA 18.4/15-38 SUPER BULL PREMIUN TR218A	28	NO	23.0	S/. 3,151.00	4	0.17	69.0	2	NO	SÍ
CAMARA 19.5-24 SUPER BULL PREMIUM TR218A	52	NO	22.5	S/. 2,047.50	18	0.80	15.0	2	NO	SÍ
CAMARA 20.5-25 SUPER BULL PREMIUN TRJ1175C	20	SÍ	6.0	S/. 912.00	6	1.00	12.0	2	NO	SÍ
CAMARA 20.8 X 38 NEXEN TR218A	10	NO	8.3	S/. 1,836.95	5	0.61	19.8	0.1	NO	SÍ
CAMARA 23.5-25 SUPER BULL PREMIUN TRJ1175C	16	SÍ	9.5	S/. 1,586.50	15	1.58	7.6	2	NO	SÍ
CAMARA 26.5-25 SUPER BULL PREMIUN TRJ1175C	11	NO	4.5	S/. 823.50	4	0.89	13.5	2	NO	SÍ
CAMARA 275/300-17 GOSTONE TR 4	107	NO	125.4	S/. 564.38	238	1.90	6.3	0.1	NO	SÍ
CAMARA 275/300-17FORTUNE TR-4	25	NO	25.0	S/. 192.25	68	2.72	4.4	0.1	NO	SÍ
CAMARA 275-18 DURO TR-4	13	NO	16.5	S/. 163.35	74	4.48	2.7	0.1	NO	SÍ
CAMARA 275-18 KENDA TR-4	43	NO	54.9	S/. 538.18	21	0.38	31.4	0.1	NO	SÍ
CAMARA 275-18 S & M TR-4	592	NO	498.4	S/. 1,983.70	177	0.36	33.8	3	NO	SÍ
CAMARA 275-18 SWALLOW TR4	618	NO	1078.6	S/. 6,579.36	1599	1.48	8.1	2.5	NO	SÍ
CAMARA 300-17 HUNG-A TR-4	87	NO	109.4	S/. 765.92	441	4.03	3.0	2.5	SÍ	NO
CAMARA 300-17 KENDA TR-4	134	SÍ	44.7	S/. 437.73	338	7.57	1.6	0.1	NO	SÍ
CAMARA 300-17 S & M TR-4	1356	NO	1170.8	S/. 4,917.15	410	0.35	34.3	3	NO	SÍ
CAMARA 300-17 SWALLOW TR4	145	NO	464.8	S/. 2,928.45	1978	4.26	2.8	2.5	SÍ	NO
CAMARA 300-18 HUNG-A TR-4	6466	NO	8545.3	S/. 63,234.85	4334	0.51	23.7	2.5	NO	SÍ
CAMARA 300-18 KENDA TR-4	80	SÍ	382.7	S/. 3,635.33	3425	8.95	1.3	0.1	NO	SÍ
CAMARA 300-18 S & M TR-4	9046	NO	8456.6	S/. 36,363.31	11024	1.30	9.2	3	NO	SÍ
CAMARA 300-18 SWALLOW TR4	4479	SÍ	4530.9	S/. 29,450.96	11198	2.47	4.9	2.5	NO	NO
CAMARA 300-18ARL TR-4	405	NO	481.4	S/. 3,446.94	1145	2.38	5.0	3	NO	NO
CAMARA 300-21 KENDA TR-4	6	NO	23.5	S/. 264.14	36	1.53	7.8	0.1	NO	SÍ

CAMARA 300-21 SWALLOW TR-4	580	NO	453.8	S/.	3,267.60	762	1.68	7.1	2.5	NO	SÍ
CAMARA 350-8 S & M TR87C	1906	NO	1351.8	S/.	4,731.13	145	0.11	111.9	3	NO	SÍ
CAMARA 350-8 SWALLOW TR87C	1989	NO	1060.9	S/.	5,622.86	215	0.20	59.2	2.5	NO	SÍ
CAMARA 400-8 GOSTONE TR 87C	192	NO	334.8	S/.	1,774.62	1635	4.88	2.5	0.1	NO	SÍ
CAMARA 400-8 KENDA TR87C	51	SÍ	126.8	S/.	1,031.75	863	6.81	1.8	0.1	NO	SÍ
CAMARA 400-8 S & M TR87C	10890	NO	7864.7	S/.	31,065.43	1122	0.14	84.1	3	NO	SÍ
CAMARA 400-8 SUPER BULL PREMIUM TR-13	41	NO	103.8	S/.	798.88	166	1.60	7.5	2	NO	SÍ
CAMARA 400-8 SUPER BULL PREMIUM TR87C	1368	NO	520.8	S/.	4,009.78	2327	4.47	2.7	2	NO	NO
CAMARA 400-8 SWALLOW TR87C	5828	SÍ	3606.0	S/.	21,275.40	3933	1.09	11.0	2.5	NO	SÍ
CAMARA 400-8 TRULPER TR 87C	104	NO	110.8	S/.	498.38	286	2.58	4.6	0.1	NO	SÍ
CAMARA 400-8M MARELY	39	NO	40.3	S/.	201.25	15	0.37	32.2	0.1	NO	SÍ
CAMARA 410-18 GOSTONE	13	NO	30.2	S/.	256.42	39	1.29	9.3	0.1	NO	SÍ
CAMARA 410-18 KENDA TR-4	21	SÍ	22.9	S/.	280.96	84	3.67	3.3	0.1	NO	SÍ
CAMARA 410-18 S & M TR-4	1887	NO	1320.6	S/.	7,527.33	170	0.13	93.2	3	NO	SÍ
CAMARA 410-18 SWALLOW TR-4	948	NO	1933.4	S/.	16,743.39	1798	0.93	12.9	2.5	NO	SÍ
CAMARA 650-16 SUPER BULL PREMIUM TR177A	189	NO	158.8	S/.	2,809.88	614	3.87	3.1	2	NO	NO
CAMARA 700-15 CAMEL	41	NO	75.0	S/.	1,777.50	108	1.44	8.3	0.1	NO	SÍ
CAMARA 700-15 SUPER BULL PREMIUM TR177A	460	NO	322.0	S/.	5,844.30	929	2.89	4.2	2	NO	SÍ
CAMARA 700-15CP CONCORD PLUS TR 177A	29	NO	29.0	S/.	576.81	57	1.97	6.1	0.1	NO	SÍ
CAMARA 700-16 CONCORD PLUS	22	NO	35.7	S/.	677.67	146	4.09	2.9	0.1	NO	SÍ
CAMARA 700-16 SUPER BULL PREMIUM TR177A	799	NO	1230.8	S/.	23,138.10	5752	4.67	2.6	2	SÍ	NO
CAMARA 700X16 NEXEN	75	NO	88.1	S/.	2,158.92	226	2.57	4.7	0.1	NO	SÍ
CAMARA 750-16 CAMELL TR177A	47	NO	188.7	S/.	3,836.35	220	1.17	10.3	0.1	NO	SÍ
CAMARA 750-16 SUPER BULL PREMIUM TR177A	1872	NO	2156.9	S/.	42,922.64	6583	3.05	3.9	2	NO	NO
CAMARA 750-16D DIAMOND	9	NO	8.8	S/.	132.50	15	1.70	7.1	0.1	NO	SÍ
CAMARA 750-16-R SUPER BULL PREMIUM REFORZADA TR177A	23	NO	128.3	S/.	2,552.18	166	1.29	9.3	2	SÍ	SÍ
CAMARA 750X16 NEXEN	46	NO	35.8	S/.	967.04	114	3.19	3.8	0.1	NO	SÍ
CAMARA 825-16 SUPER BULL PREMIUM TR177A	63	NO	517.8	S/.	13,875.70	2409	4.65	2.6	2	SÍ	NO
CAMARA 825-20 SUPER BULL PREMIUM TR177A	145	NO	178.8	S/.	5,898.75	75	0.42	28.6	2	NO	SÍ
CAMARA 825-20C CONCORD PLUS TR177A	6	NO	10.4	S/.	334.79	5	0.48	25.0	0.1	NO	SÍ
CAMARA 900-20 SUPER BULL PREMIUM TR175A	163	NO	168.8	S/.	6,530.63	113	0.67	17.9	2	NO	SÍ
CAMARA DE BICICLETA 20X1.90/2.125 CST ARO 20	85	NO	30.3	S/.	136.50	53	1.75	6.9	0.1	NO	SÍ
CAMARA DE BICICLETA 24X1.90/2.125 CST ARO 24	96	NO	48.5	S/.	218.25	69	1.42	8.4	0.1	NO	SÍ
CAMARA DE BICICLETA 26X1.90/2.125 CST ARO 26	331	NO	277.6	S/.	1,332.40	204	0.73	16.3	0.1	NO	SÍ
CAMARA ER-12 CAMELL TR13	0	SÍ	15.9	S/.	139.11	26	1.63	7.3	0.1	SÍ	SÍ
CAMARA ER-12 NEXEN TR-13	54	NO	66.8	S/.	636.13	202	3.03	4.0	0.1	NO	SÍ
CAMARA ER-12 SUPER BULL PREMIUM TR-13	416	SÍ	1747.1	S/.	14,238.73	8500	4.87	2.5	2	SÍ	NO
CAMARA ER-12C CONCORD PLUS TR13	96	NO	226.8	S/.	1,897.90	724	3.19	3.8	0.1	NO	SÍ
CAMARA ER-13 SUPER BULL PREMIUM TR13	506	NO	949.6	S/.	8,546.25	1207	1.27	9.4	2	NO	SÍ
CAMARA ER-15 DIAMOND TR-13	130	NO	145.1	S/.	1,342.02	133	0.92	13.1	0.1	NO	SÍ
CAMARA FR12 ARL	105	NO	80.5	S/.	642.39	374	4.65	2.6	3	NO	NO
CAMARA FR13 ARL	102	NO	101.6	S/.	853.30	282	2.78	4.3	3	NO	NO
CAMARA FR-13 NEXEN TR13	47	NO	51.7	S/.	629.30	85	1.65	7.3	0.1	NO	SÍ
CAMARA FR-13 SUPER BULL PREMIUM TR-13	2389	SÍ	3723.9	S/.	36,866.78	13367	3.59	3.3	2	NO	NO
CAMARA FR-14 SUPER BULL PREMIUM TR-13	4025	NO	3732.5	S/.	39,191.25	8645	2.32	5.2	2	NO	SÍ
CAMARA FR-14CP CONCORD PLUS TR 13	13	NO	84.6	S/.	844.99	110	1.30	9.2	0.1	NO	SÍ
CAMARA FR-15 DIAMOND	52	NO	149.0	S/.	1,415.50	295	1.98	6.1	0.1	NO	SÍ
CAMARA GR-13 CONCORD PLUS TR-13	23	NO	23.0	S/.	232.53	60	2.61	4.6	0.1	NO	SÍ
CAMARA GR-14 SUPER BULL PREMIUM TR-13	694	NO	504.3	S/.	6,151.85	641	1.27	9.4	2	NO	SÍ
CAMARA KR-14 SUPER BULL PREMIUM TR-13	379	NO	558.9	S/.	7,545.38	1369	2.45	4.9	2	NO	SÍ

CAMARA KR-15 NEXEN TR-13	28	NO	31.8	S/.	665.67	5	0.16	76.2	0.1	NO	SÍ
CAMARA KR-15 SUPER BULL PREMIUM TR-13	1336	NO	1517.5	S/.	23,217.75	3515	2.32	5.2	2	NO	SÍ
CAMARA KR-15 SUPER BULL TR177A	13	NO	27.0	S/.	376.11	28	1.04	11.6	2	NO	SÍ
CAMARA KR-16 SUPER BULL PREMIUM TR-13	818	NO	1512.4	S/.	23,744.94	4303	2.85	4.2	2	NO	SÍ
CAMARA KR-16C CAMELL TR13	8	NO	11.0	S/.	187.00	6	0.55	22.0	0.1	NO	SÍ
CAMARA KR-16CP CONCORD PLUS TR177A	11	NO	36.2	S/.	610.13	43	1.19	10.1	0.1	NO	SÍ
PARCHE COLD PATCH L-24	460	NO	3461.9	S/.	6,473.78	6776	1.96	6.1	0.1	NO	SÍ
PARCHE M-48 EVERWINNER	24132	SÍ	32584.3	S/.	41,056.16	24287	0.75	16.1	3	NO	SÍ
PARCHE COLD PATCH S-48	211	NO	2063.8	S/.	3,859.37	5560	2.69	4.5	0.1	NO	SÍ
PARCHE COLD PATCH YP3-219	0	SÍ	205.1	S/.	5.82	938	4.57	2.6	0.1	SÍ	SÍ
PARCHE COLD PATCH YP3-221	28	NO	250.2	S/.	14.36	2831	11.32	1.1	0.1	NO	SÍ
PARCHE CP-201 CLASSIC	14697	NO	15129.1	S/.	347.97	1196	0.08	151.8	3	NO	SÍ
PARCHE CP-202 CLASSIC	54665	NO	58154.0	S/.	2,326.16	6805	0.12	102.5	3	NO	SÍ
PARCHE CP-203 CLASSIC	33133	NO	35252.8	S/.	2,044.66	4275	0.12	99.0	3	NO	SÍ
PARCHE CP-401 CLASSIC	329496	NO	345098.9	S/.	18,635.34	29376	0.09	141.0	3	NO	SÍ
PARCHE CP-402 CLASSIC	90312	NO	93508.4	S/.	7,574.18	7749	0.08	144.8	3	NO	SÍ
PARCHE CP-403 CLASSIC	37013	NO	38791.8	S/.	4,907.17	4228	0.11	110.1	3	NO	SÍ
PARCHE CP-404 CLASSIC	20027	NO	20916.9	S/.	4,706.31	1833	0.09	136.9	3	NO	SÍ
PARCHE CP-501 DE LONA NINGBO	3735	NO	4402.6	S/.	4,666.74	1702	0.39	31.0	3	NO	SÍ
PARCHE CP-502 DE LONA NINGBO	1393	NO	1609.3	S/.	2,414.00	539	0.33	35.8	3	NO	SÍ
PARCHE CP-503 DE LONA NINGBO	1131	NO	1260.5	S/.	1,966.38	300	0.24	50.4	3	NO	SÍ
PARCHE DC107-25 NINGBO	309937	NO	222799.5	S/.	5,079.83	17664	0.08	151.4	3	NO	SÍ
PARCHE DC107-30 NINGBO	279274	NO	197972.7	S/.	8,017.89	30562	0.15	77.7	3	NO	SÍ
PARCHE DC107-40 NINGBO	90324	NO	63741.2	S/.	2,294.68	11358	0.18	67.3	3	NO	SÍ
PARCHE DC107-52 NINGBO	3928	NO	3921.6	S/.	357.65	4391	1.12	10.7	3	NO	SÍ
PARCHE DC107-65 NINGBO	2924	SÍ	2714.6	S/.	464.19	3414	1.26	9.5	3	NO	SÍ
PARCHE DC107-75 NINGBO	2471	NO	4512.4	S/.	1,015.29	4025	0.89	13.5	3	NO	SÍ
PARCHE DC108-34X24 NINGBO	45	NO	133.6	S/.	191.96	440	3.29	3.6	3	SÍ	NO
PARCHE DC108-72X40 NINGBO	2980	NO	2108.7	S/.	3,076.54	254	0.12	99.6	3	NO	SÍ
PARCHE DC110-30 NINGBO	190734	NO	185615.1	S/.	11,433.89	178916	0.96	12.4	3	NO	SÍ
PARCHE DC110-40 NINGBO	74029	NO	61778.9	S/.	5,708.37	47015	0.76	15.8	3	NO	SÍ
PARCHE DC110-52 NINGBO	25980	NO	24114.5	S/.	3,482.13	13445	0.56	21.5	3	NO	SÍ
PARCHE DC110-75 NINGBO	8374	NO	6125.8	S/.	1,572.48	1839	0.30	40.0	3	NO	SÍ
PARCHE EWQ-09 CLASSIC	65760	NO	67536.3	S/.	7,429.00	6174	0.09	131.3	3	NO	SÍ
PARCHE P-2 PANESA	2083	NO	1954.5	S/.	244.31	4242	2.17	5.5	0.1	NO	SÍ
PARCHE PARA PISCINA #62068 EN STICKERS	11	NO	15.6	S/.	38.96	28	1.80	6.7	0.1	NO	SÍ
PARCHE PARA PISCINA 59632 NP	64	SÍ	20.1	S/.	34.14	121	6.02	2.0	0.1	NO	SÍ
PARCHE REM-00 RUZI	35844	NO	29951.8	S/.	5,541.07	170	0.01	2114.2	1.5	NO	SÍ
PARCHE REM-01 RUZI	22580	NO	19668.6	S/.	4,917.15	1976	0.10	119.4	1.5	NO	SÍ
PARCHE REM-02 RUZI	12	NO	40.3	S/.	10.29	34	0.84	14.2	1.5	NO	SÍ
PARCHE REM-03 RUZI	4463	NO	3947.8	S/.	1,006.68	390	0.10	121.5	1.5	NO	SÍ
PARCHE REM-04 RUZI	3202	NO	3179.4	S/.	972.90	848	0.27	45.0	1.5	NO	SÍ
PARCHE SCHRADER SBF1	397502	NO	259951.7	S/.	51,990.33	49420	0.19	63.1	1.5	NO	SÍ
PARCHE SCHRADER SBF2	34644	SÍ	15255.4	S/.	7,017.49	27675	1.81	6.6	1.5	NO	SÍ
PARCHE SCHRADER SBF3	46977	SÍ	12150.5	S/.	7,120.19	23682	1.95	6.2	1.5	NO	SÍ
PARCHE SCHRADER SBMC2	15809	SÍ	7185.3	S/.	12,933.45	20868	2.90	4.1	1.5	NO	SÍ
PARCHE SCHRADER SBMC3	5348	SÍ	2642.8	S/.	6,474.94	12035	4.55	2.6	1.5	NO	NO
PARCHE SCHRADER SBMC4	2371	NO	2523.4	S/.	8,831.96	7822	3.10	3.9	1.5	NO	SÍ
PARCHE SCHRADER SBMC5	1446	SÍ	797.1	S/.	5,579.58	4763	5.98	2.0	1.5	NO	NO
PARCHE SCHRADER SBMC6	1838	NO	1571.8	S/.	22,477.22	1448	0.92	13.0	1.5	NO	SÍ

PARCHE SCHRADER SBMC7	922	NO	516.8	S/.	10,853.50	436	0.84	14.2	1.5	NO	SÍ
PARCHE SCHRADER SBMC8	1003	NO	1093.6	S/.	33,463.65	154	0.14	85.2	1.5	NO	SÍ
PARCHE SCHRADER SBMC9	116	NO	127.9	S/.	3,837.50	26	0.20	59.0	1.5	NO	SÍ
PARCHE SCHRADER SBRO	519859	SÍ	181674.5	S/.	18,167.45	136976	0.75	15.9	1.5	NO	SÍ
PARCHE SCHRADER SBR1	240887	SÍ	101839.1	S/.	13,239.08	239546	2.35	5.1	1.5	NO	SÍ
PARCHE SCHRADER SBR10	208	NO	137.4	S/.	272.09	628	4.57	2.6	1.5	NO	NO
PARCHE SCHRADER SBR2	23475	SÍ	8399.3	S/.	2,624.79	41559	4.95	2.4	1.5	NO	NO
PARCHE SCHRADER SBR3	10282	NO	9874.2	S/.	3,455.96	31425	3.18	3.8	1.5	NO	SÍ
PARCHE SCHRADER SBR4	20480	SÍ	6482.3	S/.	3,127.73	17375	2.68	4.5	1.5	NO	SÍ
PARCHE SCHRADER SBR5	2760	NO	2581.4	S/.	1,677.92	2682	1.04	11.5	1.5	NO	SÍ
PARCHE SCHRADER SBR6	1690.5	NO	1500.5	S/.	3,061.02	825	0.55	21.8	1.5	NO	SÍ
PARCHE SCHRADER SBR7	6403	SÍ	1275.5	S/.	984.69	1726	1.35	8.9	1.5	NO	SÍ
PARCHE SCHRADER SBR8	5868	NO	1252.7	S/.	1,428.04	2037	1.63	7.4	1.5	NO	SÍ
PARCHE SCHRADER SBRB1	341300	SÍ	101415.3	S/.	9,634.46	110559	1.09	11.0	1.5	NO	SÍ
PARCHE SCHRADER SBRB2	21798	SÍ	9118.2	S/.	1,850.99	5364	0.59	20.4	1.5	NO	SÍ
PARCHE SCHRADER SBRC10	19145	SÍ	5887.3	S/.	9,419.73	15540	2.64	4.5	1.5	NO	SÍ
PARCHE SCHRADER SBRC12	10622	SÍ	4410.3	S/.	13,231.00	7728	1.75	6.8	1.5	NO	SÍ
PARCHE SCHRADER SBRC14	3717	SÍ	2645.7	S/.	7,672.43	5504	2.08	5.8	1.5	NO	SÍ
PARCHE SCHRADER SBRC20	5623	NO	4410.5	S/.	9,703.10	2763	0.63	19.2	1.5	NO	SÍ
PARCHE SCHRADER SBRC22	727	NO	1083.3	S/.	3,953.86	800	0.74	16.2	1.5	NO	SÍ
PARCHE SCHRADER SBRC24	1065	NO	766.9	S/.	2,914.28	135	0.18	68.2	1.5	NO	SÍ
PARCHE SCHRADER SBRC40	3090	NO	2286.8	S/.	14,178.37	1831	0.80	15.0	1.5	NO	SÍ
PARCHE SCHRADER SBRC42	890	NO	759.3	S/.	7,592.50	894	1.18	10.2	1.5	NO	SÍ
PARCHE SCHRADER SBRC44	68	NO	129.3	S/.	1,616.67	275	2.13	5.6	1.5	NO	SÍ
PARCHE TFMD-02 TIREFIX	6050	NO	1622.4	S/.	2,563.42	1901	1.17	10.2	1.5	NO	SÍ
PARCHE TFMD-03 TIREFIX	3405	NO	1103.2	S/.	2,316.65	1110	1.01	11.9	1.5	NO	SÍ
PARCHE TFMD-04 TIREFIX	358	NO	111.3	S/.	361.56	186	1.67	7.2	1.5	NO	SÍ
PARCHE TFMD-05 TIREFIX	160	NO	50.5	S/.	287.85	154	3.05	3.9	1.5	NO	SÍ
PARCHE TFRC-110 TIREFIX	10914	NO	2016.4	S/.	2,974.21	1231	0.61	19.7	1.5	NO	SÍ
PARCHE TFRC-112 TIREFIX	5653	NO	1195.3	S/.	2,569.79	1034	0.87	13.9	1.5	NO	SÍ
PARCHE TFRC-114 TIREFIX	1911	NO	578.3	S/.	1,474.54	1123	1.94	6.2	1.5	NO	SÍ
PARCHE TFRC-120 TIREFIX	416	NO	87.5	S/.	236.25	142	1.62	7.4	1.5	NO	SÍ
PARCHE VD10 VIPAL	35	NO	47.8	S/.	3,851.11	86	1.80	6.7	0.1	NO	SÍ
PARCHE VF-3 VIPAL	6092	NO	6342.7	S/.	2,866.63	5256	0.83	14.5	0.1	NO	SÍ
PARCHE VIPAL R-00	189203	NO	203131.3	S/.	47,707.41	149178	0.73	16.3	0.1	NO	SÍ
PARCHE VIPAL R-01	167092	NO	153198.8	S/.	39,911.34	213104	1.39	8.6	0.1	NO	SÍ
PARCHE VIPAL R-02	27893	NO	18467.5	S/.	7,209.25	38871	2.10	5.7	0.1	NO	SÍ
PARCHE VIPAL R-03	12056	NO	11748.0	S/.	7,685.54	22533	1.92	6.3	0.1	NO	SÍ
PARCHE VIPAL R-04	9110	NO	12882.4	S/.	10,418.98	20921	1.62	7.4	0.1	NO	SÍ
PARCHE VIPAL R-05	2013	NO	1499.6	S/.	2,814.60	3291	2.19	5.5	0.1	NO	SÍ
PARCHE VIPAL R-06	151	NO	155.8	S/.	418.48	764	4.91	2.4	0.1	NO	SÍ
PARCHE VIPAL RAC08	104	NO	259.0	S/.	567.21	372	1.44	8.4	0.1	NO	SÍ
PARCHE VIPAL RAC10	3045	NO	2358.8	S/.	5,169.67	7737	3.28	3.7	0.1	NO	SÍ
PARCHE VIPAL RAC12	415	NO	392.0	S/.	1,454.71	3470	8.85	1.4	0.1	NO	SÍ
PARCHE VIPAL RAC14	1378	NO	1362.4	S/.	5,869.97	2128	1.56	7.7	0.1	NO	SÍ

PARCHE VIPAL RAC20	708	NO	492.4	S/.	3,045.79	490	1.00	12.1	0.1	NO	SÍ	
PARCHE VIPAL RAC22	279	NO	172.3	S/.	1,073.98	334	1.94	6.2	0.1	NO	SÍ	
PARCHE VIPAL RAC24	86	NO	79.3	S/.	608.55	19	0.24	50.1	0.1	NO	SÍ	
PARCHE VIPAL RAC25	63	NO	58.8	S/.	502.44	85	1.44	8.3	0.1	NO	SÍ	
PARCHE VIPAL RAC35	49	NO	116.3	S/.	1,401.02	432	3.72	3.2	0.1	NO	SÍ	
PARCHE VIPAL RAC40	123	NO	113.6	S/.	1,223.47	280	2.47	4.9	0.1	NO	SÍ	
PARCHE VIPAL RAC42	55	NO	63.8	S/.	877.73	49	0.77	15.6	0.1	NO	SÍ	
PARCHE VIPAL RAC44	17	NO	31.5	S/.	520.07	42	1.33	9.0	0.1	NO	SÍ	
PARCHE VIPAL RBM-01	97204	NO	50783.8	S/.	9,271.59	57585	1.13	10.6	0.1	NO	SÍ	
PARCHE VIPAL RBM-02	1455	SÍ	763.8	S/.	199.74	1609	2.11	5.7	0.1	NO	SÍ	
PARCHE VIPAL RT-3	14056	NO	16900.8	S/.	9,701.50	14760	0.87	13.7	0.1	NO	SÍ	
PARCHE VIPAL VD1	20048	NO	15698.8	S/.	26,893.06	40335	2.57	4.7	0.1	NO	SÍ	
PARCHE VIPAL VD2	5038	NO	3814.4	S/.	9,652.19	14244	3.73	3.2	0.1	NO	SÍ	
PARCHE VIPAL VD3	2978	NO	2482.0	S/.	9,260.09	6163	2.48	4.8	0.1	NO	SÍ	
PARCHE VIPAL VD4	2308	NO	2073.0	S/.	12,220.54	3629	1.75	6.9	0.1	NO	SÍ	
PARCHE VIPAL VD5	1041	NO	923.3	S/.	8,559.58	2974	3.22	3.7	0.1	NO	SÍ	
PARCHE VIPAL VD6	506	NO	560.4	S/.	9,560.76	1114	1.99	6.0	0.1	NO	SÍ	
PARCHE VIPAL VD7	42	NO	106.3	S/.	2,666.81	284	2.67	4.5	0.1	NO	SÍ	
PARCHE VIPAL VDB8	8	SÍ	8.8	S/.	360.45	132	15.09	0.8	0.1	NO	NO	
PARCHE VIPAL VD9	18	SÍ	7.5	S/.	393.01	5	0.67	18.0	0.1	NO	SÍ	
PARCHE VIPAL VF-6	7321	NO	7830.3	S/.	6,536.92	5336	0.68	17.6	0.1	NO	SÍ	
PARCHE VIPAL VF-8	3272	SÍ	6775.6	S/.	7,951.42	12190	1.80	6.7	0.1	NO	SÍ	
		35 STOCKOUTS		S/.	1,358,550.81					TOTAL STO	11	184

CLASE	INDICE DE ROTACIÓN
A	2.74
B	2.31
C	1.74

### Anexo 24.2. Desempeño de la gestión de inventarios propuesta

PRODUCTO	STOCK FINAL 2014	PERÍODO DE REVISIÓN	INVENTARIO MÁXIMO	CLASIFICACIÓN ABC MULTICRITERIO	ROTURA DE STOCK (2014)	INVENTARIO PROMEDIO (UNID)	INVENTARIO PROMEDIO (S./.)	DEMANDA ANUAL	INDICE DE ROTACIÓN	ESTADIA PROMEDIO (MESES)	LEAD TIME (MESES)	RIESGO DE ROTURA? (2015)	EXCEDENTES DE MESES EN INVENTARIO	N° DE FALTANTES	COSTO POR FALTANTES
CAMARA 400-8ARL TR 87C	112	5	1099	C	NO	573.5	S/. 3,412.33	987	1.72	7.0	3	SI	SI	0	S/. -
CAMARA 1000-20 SUPER BULL PREMIUM TR78A	38	2	98	C	NO	89.9	S/. 3,830.45	192	2.14	5.6	2	NO	SI	0	S/. -
CAMARA 1000R20 SUPER BULL PREMIUM TR78A	63	2	69	C	NO	46.9	S/. 2,181.63	139	2.96	4.1	2	NO	SI	0	S/. -
CAMARA 1100-20 CONCORD PLUS TR78A	-6	4	23	C	NO	18.9	S/. 839.90	29	1.53	7.8	0.1	SI	SI	-6	S/. -266.40
CAMARA 1100-20 SUPER BULL PREMIUM TR78A	186	1	128	C	NO	189.1	S/. 9,681.07	415	2.19	5.5	2	NO	SI	-116	S/. -5,939.20
CAMARA 1100-20ARL TR78A	569	5	276	C	NO	443.8	S/. 16,330.00	180	0.41	29.6	3	NO	SI	0	S/. -
CAMARA 1100R20 SUPER BULL PREMIUM TR78A	191	2	133	C	NO	130.8	S/. 6,868.75	272	2.08	5.8	2	NO	SI	-50	S/. -2,625.00
CAMARA 1100R22 SUPER BULL PREMIUM TR78A	140	8	26	C	NO	140.7	S/. 7,624.13	14	0.10	120.6	2	NO	SI	0	S/. -
CAMARA 11L-16 SUPER BULL PREMIUM TR15	12	16	21	C	NO	18.3	S/. 513.33	9	0.49	24.4	2	NO	SI	0	S/. -
CAMARA 12.5/80-18 SUPER BULL PREMIUM TR218A	17	4	29	C	NO	22.8	S/. 910.00	40	1.76	6.8	2	NO	SI	0	S/. -
CAMARA 1200-20 CONCORD PLUS	35	4	35	C	NO	28.8	S/. 1,610.00	51	1.77	6.8	0.1	NO	SI	-9	S/. -504.00
CAMARA 1200-20 SUPER BULL PREMIUM TR78A	170	2	84	C	SI	99.8	S/. 5,550.73	138	1.38	8.7	2	NO	SI	-72	S/. -4,003.20
CAMARA 1200-20ARL TR78A	20	5	140	C	NO	81.8	S/. 3,335.40	120	1.47	8.2	3	SI	SI	0	S/. -
CAMARA 1200-24 SUPER BULL PREMIUM TR78A	30	4	35	C	NO	17.0	S/. 1,054.00	35	2.06	5.8	2	NO	SI	-10	S/. -620.00
CAMARA 1200R20 SUPER BULL PREMIUM TR78A	226	1	152	B	NO	138.7	S/. 7,765.33	489	3.53	3.4	2	NO	NO	-7	S/. -392.00
CAMARA 14.9/13-24 SUPER BULL PREMIUM TR 218A	7	16	11	C	NO	8.8	S/. 560.00	4	0.46	26.3	2	NO	SI	0	S/. -
CAMARA 14.9/13-28 SUPER BULL PREMIUM	21	8	21	C	NO	12.4	S/. 912.63	13	1.05	11.5	2	NO	SI	0	S/. -
CAMARA 1400-24 TR179A SUPER BULL PREMIUM	17	8	18	C	NO	8.9	S/. 744.54	11	1.23	9.7	2	NO	SI	-2	S/. -167.00
CAMARA 18.4/15-38 SUPER BULL PREMIUM TR218A	4	8	5	C	NO	6.5	S/. 890.50	4	0.62	19.5	2	NO	SI	0	S/. -
CAMARA 19.5-24 SUPER BULL PREMIUM TR218A	8	4	15	C	NO	9.7	S/. 879.67	18	1.86	6.4	2	NO	SI	0	S/. -
CAMARA 20.5-25 SUPER BULL PREMIUM TRJ1175C	9	8	9	C	SI	6.2	S/. 937.33	6	0.97	12.3	2	NO	SI	0	S/. -
CAMARA 20.8 X 38 NEXEN TR218A	6	4	6	C	NO	5.3	S/. 1,168.97	5	0.95	12.6	0.1	NO	SI	0	S/. -
CAMARA 23.5-25 SUPER BULL PREMIUM TRJ1175C	1	4	12	C	SI	8.0	S/. 1,336.00	15	1.88	6.4	2	SI	SI	0	S/. -
CAMARA 26.5-25 SUPER BULL PREMIUM TRJ1175C	3	8	5	C	NO	3.2	S/. 579.50	4	1.26	9.5	2	NO	SI	0	S/. -
CAMARA 275/300-17 GOSTONE TR 4	138	4	144	C	NO	108.6	S/. 488.63	238	2.19	5.5	0.1	NO	SI	0	S/. -
CAMARA 275/300-17FORTUNE TR-4	47	8	47	C	NO	30.0	S/. 230.70	68	2.27	5.3	0.1	NO	SI	-63	S/. -484.47
CAMARA 275-18 DURO TR-4	38	4	38	C	NO	33.2	S/. 328.35	74	2.23	5.4	0.1	NO	SI	0	S/. -
CAMARA 275-18 KENDA TR-4	43	8	26	C	NO	54.9	S/. 538.18	21	0.38	31.4	0.1	NO	SI	0	S/. -
CAMARA 275-18 S & M TR-4	92	6	166	C	NO	165.1	S/. 657.03	177	1.07	11.2	3	NO	SI	0	S/. -
CAMARA 275-18 SWALLOW TR4	472	2	808	C	NO	859.3	S/. 5,241.43	1599	1.86	6.4	2.5	NO	SI	0	S/. -
CAMARA 300-17 HUNG-A TR-4	519	4	519	C	NO	288.8	S/. 2,021.25	441	1.53	7.9	2.5	NO	SI	0	S/. -
CAMARA 300-17 KENDA TR-4	19	2	111	C	SI	78.0	S/. 764.40	338	4.33	2.8	0.1	NO	SI	0	S/. -
CAMARA 300-17 S & M TR-4	141	6	550	C	NO	384.0	S/. 1,612.80	410	1.07	11.2	3	NO	SI	0	S/. -
CAMARA 300-17 SWALLOW TR4	7	2	910	B	NO	553.0	S/. 3,483.90	1978	3.58	3.4	2.5	SI	NO	0	S/. -
CAMARA 300-18 HUNG-A TR-4	6466	2	1762	B	NO	8545.3	S/. 63,234.85	4334	0.51	23.7	2.5	NO	SI	0	S/. -
CAMARA 300-18 KENDA TR-4	204	1	474	B	SI	280.0	S/. 2,660.00	3425	12.23	1.0	0.1	NO	NO	0	S/. -
CAMARA 300-18 S & M TR-4	2870	3	5739	A	NO	3168.3	S/. 13,623.48	11024	3.48	3.4	3	NO	NO	0	S/. -
CAMARA 300-18 SWALLOW TR4	3968	2	4984	A	SI	3665.8	S/. 23,827.38	11198	3.05	3.9	2.5	NO	NO	0	S/. -
CAMARA 300-18ARL TR-4	2	5	1147	C	NO	599.2	S/. 4,290.03	1145	1.91	6.3	3	SI	SI	0	S/. -
CAMARA 300-21 KENDA TR-4	25	8	36	C	NO	29.8	S/. 335.33	36	1.21	9.9	0.1	NO	SI	0	S/. -
CAMARA 300-21 SWALLOW TR-4	265	2	364	C	NO	187.8	S/. 1,351.80	762	4.06	3.0	2.5	NO	NO	0	S/. -
CAMARA 350-8 S & M TR87C	110	12	255	C	NO	171.4	S/. 599.96	145	0.85	14.2	3	NO	SI	0	S/. -
CAMARA 350-8 SWALLOW TR87C	93	8	284	C	NO	172.9	S/. 916.46	215	1.24	9.7	2.5	NO	SI	0	S/. -
CAMARA 400-8 GOSTONE TR 87C	399	2	436	C	NO	239.2	S/. 1,267.58	1635	6.84	1.8	0.1	NO	SI	-80	S/. -424.00
CAMARA 400-8 KENDA TR87C	115	2	198	C	SI	117.8	S/. 958.49	863	7.33	1.6	0.1	NO	SI	0	S/. -
CAMARA 400-8 S & M TR87C	202	3	828	C	NO	633.8	S/. 2,503.31	1122	1.77	6.8	3	SI	SI	0	S/. -
CAMARA 400-8 SUPER BULL PREMIUM TR-13	79	4	115	C	NO	110.1	S/. 847.64	166	1.51	8.0	2	NO	SI	0	S/. -
CAMARA 400-8 SUPER BULL PREMIUM TR87C	1230	2	1110	C	NO	1017.3	S/. 7,832.83	2327	2.29	5.2	2	NO	SI	-524	S/. -4,034.80
CAMARA 400-8 SWALLOW TR87C	690	2	1550	B	SI	1111.3	S/. 6,556.87	3933	3.54	3.4	2.5	SI	NO	0	S/. -
CAMARA 400-8 TRULPER TR 87C	213	4	213	C	NO	144.6	S/. 650.63	286	1.98	6.1	0.1	NO	SI	0	S/. -





PARCHE CP-503 DE LONA NINGBO	1131	12	434	C	NO	1260.5	S/. 1,966.38	300	0.24	50.4	3	NO	SÍ	0	S/.	-
PARCHE DC107-25 NINGBO	22415	12	40079	C	NO	32158.0	S/. 733.20	17664	0.55	21.8	3	NO	SÍ	0	S/.	-
PARCHE DC107-30 NINGBO	16632	6	38190	C	NO	21489.2	S/. 870.31	30562	1.42	8.4	3	NO	SÍ	0	S/.	-
PARCHE DC107-40 NINGBO	9902	12	21260	C	NO	11758.0	S/. 423.29	11358	0.97	12.4	3	NO	SÍ	0	S/.	-
PARCHE DC107-52 NINGBO	4180	12	8571	C	NO	4777.3	S/. 435.69	4391	0.92	13.1	3	NO	SÍ	0	S/.	-
PARCHE DC107-65 NINGBO	1145	6	2750	C	SÍ	892.5	S/. 152.62	3414	3.83	3.1	3	NO	NO	0	S/.	-
PARCHE DC107-75 NINGBO	2471	6	3611	C	NO	4512.4	S/. 1,015.29	4025	0.89	13.5	3	NO	SÍ	0	S/.	-
PARCHE DC108-34X24 NINGBO	407	6	439	C	NO	224.1	S/. 322.01	440	1.96	6.1	3	NO	SÍ	0	S/.	-
PARCHE DC108-72X40 NINGBO	116	12	370	C	NO	210.7	S/. 307.36	254	1.21	10.0	3	NO	SÍ	0	S/.	-
PARCHE DC110-30 NINGBO	38549	3	123593	A	NO	77307.7	S/. 4,762.15	178916	2.31	5.2	3	SÍ	NO	0	S/.	-
PARCHE DC110-40 NINGBO	11711	3	33391	B	NO	18728.8	S/. 1,730.54	47015	2.51	4.8	3	SÍ	NO	0	S/.	-
PARCHE DC110-52 NINGBO	5669	6	15316	C	NO	9328.9	S/. 1,347.10	13445	1.44	8.3	3	NO	SÍ	0	S/.	-
PARCHE DC110-75 NINGBO	1321	12	3160	C	NO	1646.0	S/. 422.53	1839	1.12	10.7	3	NO	SÍ	0	S/.	-
PARCHE EWQ-09 CLASSIC	65760	6	6577	C	NO	67536.3	S/. 4,429.00	6174	0.09	131.3	3	NO	SÍ	0	S/.	-
PARCHE P-2 PANESA	2999	8	4229	C	NO	3362.5	S/. 420.31	4242	1.26	9.5	0.1	NO	SÍ	0	S/.	-
PARCHE PARA PISCINA #62068 EN STICKERS	28	16	56	C	NO	32.6	S/. 81.46	28	0.86	14.0	0.1	NO	SÍ	0	S/.	-
PARCHE PARA PISCINA 59632 NP	129	8	145	C	SÍ	81.1	S/. 137.84	121	1.49	8.0	0.1	NO	SÍ	0	S/.	-
PARCHE REM-00 RUZI	476	32	646	C	NO	478.4	S/. 88.51	170	0.36	33.8	1.5	NO	SÍ	0	S/.	-
PARCHE REM-01 RUZI	1087	8	2081	C	NO	1103.1	S/. 275.77	1976	1.79	6.7	1.5	NO	SÍ	0	S/.	-
PARCHE REM-02 RUZI	153	64	187	C	NO	157.8	S/. 40.25	34	0.22	55.7	1.5	NO	SÍ	0	S/.	-
PARCHE REM-03 RUZI	400	16	790	C	NO	561.9	S/. 143.29	390	0.69	17.3	1.5	NO	SÍ	0	S/.	-
PARCHE REM-04 RUZI	1130	16	1978	C	NO	1452.8	S/. 444.54	848	0.58	20.6	1.5	NO	SÍ	0	S/.	-
PARCHE SCHRADER SBF1	9569	2	22841	B	NO	12860.6	S/. 2,572.12	49420	3.84	3.1	1.5	NO	SÍ	-1590	S/.	-318.00
PARCHE SCHRADER SBF2	1838	2	8885	B	SÍ	3585.1	S/. 1,649.14	27675	7.72	1.6	1.5	SÍ	NO	0	S/.	-
PARCHE SCHRADER SBF3	-593	2	10976	B	SÍ	6408.2	S/. 3,755.19	23682	3.70	3.2	1.5	SÍ	SÍ	-593	S/.	-347.50
PARCHE SCHRADER SBMC2	4003	2	7560	A	SÍ	3825.4	S/. 6,885.75	20868	5.46	2.2	1.5	NO	NO	0	S/.	-
PARCHE SCHRADER SBMC3	2206	2	4248	A	SÍ	1926.3	S/. 4,719.52	12035	6.25	1.9	1.5	NO	NO	0	S/.	-
PARCHE SCHRADER SBMC4	1363	2	2909	B	NO	1454.1	S/. 5,089.29	7822	5.38	2.2	1.5	NO	NO	-277	S/.	-969.50
PARCHE SCHRADER SBMC5	1042	2	1758	B	SÍ	788.6	S/. 5,520.08	4763	6.04	2.0	1.5	NO	NO	-170	S/.	-1,190.00
PARCHE SCHRADER SBMC6	438	2	518	B	NO	1188.5	S/. 16,995.55	1448	1.22	9.8	1.5	NO	SÍ	0	S/.	-
PARCHE SCHRADER SBMC7	22	2	159	C	NO	216.8	S/. 4,553.50	436	2.01	6.0	1.5	SÍ	SÍ	0	S/.	-
PARCHE SCHRADER SBMC8	1003	2	65	C	NO	1093.6	S/. 33,463.65	154	0.14	85.2	1.5	NO	SÍ	0	S/.	-
PARCHE SCHRADER SBMC9	116	8	30	C	NO	127.9	S/. 3,837.50	26	0.20	59.0	1.5	NO	SÍ	0	S/.	-
PARCHE SCHRADER SBRO	59322	2	63960	A	SÍ	34028.9	S/. 3,402.89	136976	4.03	3.0	1.5	NO	NO	-4118	S/.	-411.80
PARCHE SCHRADER SBR1	38762	2	84206	A	SÍ	37209.7	S/. 4,837.26	239546	6.44	1.9	1.5	NO	NO	0	S/.	-
PARCHE SCHRADER SBR10	157	4	505	C	NO	310.6	S/. 614.96	628	2.02	5.9	1.5	NO	SÍ	0	S/.	-
PARCHE SCHRADER SBR2	6237	2	15088	A	SÍ	6857.8	S/. 2,143.07	41559	6.06	2.0	1.5	NO	NO	-345	S/.	-107.81
PARCHE SCHRADER SBR3	5899	2	10662	B	NO	5193.3	S/. 1,817.64	31425	6.05	2.0	1.5	NO	NO	-1856	S/.	-649.60
PARCHE SCHRADER SBR4	2773	2	6115	B	SÍ	2483.9	S/. 1,198.49	17375	7.00	1.7	1.5	NO	NO	0	S/.	-
PARCHE SCHRADER SBR5	1133	4	1771	C	NO	1872.8	S/. 1,217.29	2682	1.43	8.4	1.5	NO	SÍ	0	S/.	-
PARCHE SCHRADER SBR6	440.5	4	498	C	NO	875.5	S/. 1,786.02	825	0.94	12.7	1.5	NO	SÍ	0	S/.	-
PARCHE SCHRADER SBR7	170	4	1746	C	SÍ	1191.0	S/. 919.45	1726	1.45	8.3	1.5	SÍ	SÍ	0	S/.	-
PARCHE SCHRADER SBR8	283	4	2193	C	NO	1552.8	S/. 1,770.23	2037	1.31	9.1	1.5	NO	SÍ	0	S/.	-
PARCHE SCHRADER SBRB1	5173	2	48790	B	SÍ	25819.8	S/. 2,452.88	110559	4.28	2.8	1.5	SÍ	NO	0	S/.	-
PARCHE SCHRADER SBRB2	528	4	3749	C	SÍ	2018.5	S/. 409.76	5364	2.66	4.5	1.5	SÍ	SÍ	0	S/.	-
PARCHE SCHRADER SBRC10	2822	2	6271	A	SÍ	2954.1	S/. 4,726.53	15540	5.26	2.3	1.5	NO	NO	0	S/.	-
PARCHE SCHRADER SBRC12	876	2	2514	B	SÍ	948.2	S/. 2,844.50	7728	8.15	1.5	1.5	SÍ	NO	0	S/.	-
PARCHE SCHRADER SBRC14	702	2	2014	B	SÍ	862.3	S/. 2,500.53	5504	6.38	1.9	1.5	NO	NO	0	S/.	-
PARCHE SCHRADER SBRC20	423	2	1029	C	NO	1643.8	S/. 3,616.43	2763	1.68	7.1	1.5	NO	SÍ	0	S/.	-
PARCHE SCHRADER SBRC22	607	4	473	C	NO	1003.3	S/. 3,661.86	800	0.80	15.0	1.5	NO	SÍ	0	S/.	-
PARCHE SCHRADER SBRC24	205	8	137	C	NO	276.9	S/. 1,052.28	135	0.49	24.6	1.5	NO	SÍ	0	S/.	-
PARCHE SCHRADER SBRC40	890	2	564	B	NO	1653.5	S/. 10,251.70	1831	1.11	10.8	1.5	NO	SÍ	0	S/.	-
PARCHE SCHRADER SBRC42	90	2	301	C	NO	485.9	S/. 4,859.17	894	1.84	6.5	1.5	SÍ	SÍ	0	S/.	-
PARCHE SCHRADER SBRC44	20	4	207	C	NO	142.7	S/. 1,783.33	275	1.93	6.2	1.5	SÍ	SÍ	0	S/.	-
PARCHE TFMD-02 TIREFIX	463	4	1637	C	NO	1041.9	S/. 1,646.23	1901	1.82	6.6	1.5	NO	SÍ	0	S/.	-
PARCHE TFMD-03 TIREFIX	247	4	961	C	NO	634.2	S/. 1,331.75	1110	1.75	6.9	1.5	NO	SÍ	0	S/.	-
PARCHE TFMD-04 TIREFIX	254	8	440	C	NO	357.9	S/. 1,163.23	186	0.52	23.1	1.5	NO	SÍ	0	S/.	-
PARCHE TFMD-05 TIREFIX	202	8	356	C	NO	285.5	S/. 1,627.35	154	0.54	22.2	1.5	NO	SÍ	0	S/.	-
PARCHE TFRC-110 TIREFIX	118	4	1349	C	NO	1019.8	S/. 1,504.13	1231	1.21	9.9	1.5	SÍ	SÍ	0	S/.	-
PARCHE TFRC-112 TIREFIX	263	4	917	C	NO	616.9	S/. 1,326.37	1034	1.68	7.2	1.5	NO	SÍ	0	S/.	-

PARCHE TFRC-114 TIREFIX	185	4	929	C	NO	553.9	S/.	1,412.49	1123	2.03	5.9	1.5	NO	Sí	0	S/.	-	
PARCHE TFRC-120 TIREFIX	199	8	341	C	NO	273.3	S/.	738.00	142	0.52	23.1	1.5	NO	Sí	0	S/.	-	
PARCHE VD10 VIPAL	32	2	43	C	NO	42.5	S/.	3,421.72	86	2.02	5.9	0.1	NO	Sí	0	S/.	-	
PARCHE VF-3 VIPAL	3033	4	3865	C	NO	3238.7	S/.	1,463.75	5256	1.62	7.4	0.1	NO	Sí	0	S/.	-	
PARCHE VIPAL R-00	14296	1	25044	A	NO	12890.6	S/.	3,027.48	149178	11.57	1.0	0.1	NO	Sí	0	S/.	-	
PARCHE VIPAL R-01	11020	1	29202	A	NO	13459.5	S/.	3,506.47	213104	15.83	0.8	0.1	NO	NO	0	S/.	-	
PARCHE VIPAL R-02	3639	1	5641	B	NO	2615.1	S/.	1,020.86	38871	14.86	0.8	0.1	NO	NO	-1221	S/.	-476.65	
PARCHE VIPAL R-03	1646	1	3361	B	NO	1483.3	S/.	970.34	22533	15.19	0.8	0.1	NO	NO	-685	S/.	-448.13	
PARCHE VIPAL R-04	1039	1	2582	B	NO	909.3	S/.	735.45	20921	23.01	0.5	0.1	NO	NO	-538	S/.	-435.12	
PARCHE VIPAL R-05	119	2	801	C	NO	403.6	S/.	757.49	3291	8.15	1.5	0.1	NO	Sí	-80	S/.	-150.15	
PARCHE VIPAL R-06	73	4	377	C	NO	217.0	S/.	583.04	764	3.52	3.4	0.1	NO	Sí	0	S/.	-	
PARCHE VIPAL RAC08	115	4	187	C	NO	262.7	S/.	575.24	372	1.42	8.5	0.1	NO	Sí	0	S/.	-	
PARCHE VIPAL RAC10	808	1	1306	B	NO	661.3	S/.	1,449.26	7737	11.70	1.0	0.1	NO	Sí	-400	S/.	-876.68	
PARCHE VIPAL RAC12	251	1	483	C	NO	193.8	S/.	719.32	3470	17.90	0.7	0.1	NO	NO	-202	S/.	-749.62	
PARCHE VIPAL RAC14	-107	2	481	C	NO	256.9	S/.	1,106.93	2128	8.28	1.4	0.1	Sí	Sí	-107	S/.	-461.01	
PARCHE VIPAL RAC20	31	2	127	C	NO	61.9	S/.	382.98	490	7.91	1.5	0.1	NO	Sí	0	S/.	-	
PARCHE VIPAL RAC22	75	4	153	C	NO	74.0	S/.	461.17	334	4.51	2.7	0.1	NO	Sí	0	S/.	-	
PARCHE VIPAL RAC24	26	16	44	C	NO	36.8	S/.	282.54	19	0.52	23.3	0.1	NO	Sí	0	S/.	-	
PARCHE VIPAL RAC25	46	4	54	C	NO	40.0	S/.	341.60	85	2.13	5.6	0.1	NO	Sí	0	S/.	-	
PARCHE VIPAL RAC35	19	2	110	C	NO	68.3	S/.	822.54	432	6.33	1.9	0.1	NO	Sí	-13	S/.	-156.67	
PARCHE VIPAL RAC40	15	2	70	C	NO	37.9	S/.	408.42	280	7.38	1.6	0.1	NO	Sí	0	S/.	-	
PARCHE VIPAL RAC42	25	8	43	C	NO	47.2	S/.	648.56	49	1.04	11.6	0.1	NO	Sí	0	S/.	-	
PARCHE VIPAL RAC44	40	8	76	C	NO	67.2	S/.	1,108.93	42	0.63	19.2	0.1	NO	Sí	0	S/.	-	
PARCHE VIPAL RBM-01	5940	2	14008	B	NO	6718.8	S/.	1,226.64	57585	8.57	1.4	0.1	NO	Sí	-476	S/.	-86.90	
PARCHE VIPAL RBM-02	1205	8	1412	C	Sí	824.1	S/.	215.51	1609	1.95	6.1	0.1	NO	Sí	0	S/.	-	
PARCHE VIPAL RT-3	1220	2	3383	C	NO	1574.3	S/.	903.71	14760	9.38	1.3	0.1	NO	Sí	0	S/.	-	
PARCHE VIPAL VD1	1487	1	5443	A	NO	2159.4	S/.	3,699.23	40335	18.68	0.6	0.1	NO	NO	0	S/.	-	
PARCHE VIPAL VD2	877	1	2018	A	NO	836.3	S/.	2,116.30	14244	17.03	0.7	0.1	NO	NO	0	S/.	-	
PARCHE VIPAL VD3	321	1	791	B	NO	310.8	S/.	1,159.38	6163	19.83	0.6	0.1	NO	NO	-125	S/.	-466.36	
PARCHE VIPAL VD4	19	1	465	B	NO	305.3	S/.	1,799.48	3629	11.89	1.0	0.1	Sí	Sí	0	S/.	-	
PARCHE VIPAL VD5	203	1	447	B	NO	244.4	S/.	2,265.82	2974	12.17	1.0	0.1	NO	NO	-107	S/.	-991.92	
PARCHE VIPAL VD6	110	1	190	C	NO	197.3	S/.	3,366.53	1114	5.65	2.1	0.1	NO	Sí	-147	S/.	-2,507.83	
PARCHE VIPAL VD7	5	2	92	C	NO	71.7	S/.	1,797.38	284	3.96	3.0	0.1	NO	Sí	0	S/.	-	
PARCHE VIPAL VD8	50	2	51	C	Sí	32.0	S/.	1,318.20	132	4.13	2.9	0.1	NO	Sí	-32	S/.	-1,318.20	
PARCHE VIPAL VD9	6	8	6	C	Sí	4.7	S/.	244.54	5	1.07	11.2	0.1	NO	Sí	0	S/.	-	
PARCHE VIPAL VF-6	1612	2	1953	C	NO	1358.5	S/.	1,134.10	5336	3.93	3.1	0.1	NO	Sí	-155	S/.	-129.40	
PARCHE VIPAL VF-8	1414	1	2111	B	Sí	1095.2	S/.	1,285.22	12190	11.13	1.1	0.1	NO	Sí	-112	S/.	-131.44	
35 STOCKOUTS															TOTAL STO			
															31	163	S/.	-42,771.16

	DESEMPEÑO REAL	META	REAL vs META		
<b>A</b>	S/.	3,358.41	S/.	5,334.88	-37.05%
<b>B</b>	S/.	8,464.22	S/.	8,750.92	-3.28%
<b>C</b>	S/.	30,948.53	S/.	24,480.29	26.42%
	S/.	42,771.16	S/.	38,566.09	10.90%

### Anexo 24.3. Niveles de existencias de la gestión de inventarios propuesta

PRODUCTO	PERÍODO DE REVISIÓN	INVENTARIO MÁXIMO	CLASIFICACIÓN ABC MULTICRITERIO	ROTURA DE STOCK (2014)	INVENTARIO PROMEDIO (UNID)	INVENTARIO PROMEDIO (S/.)	DEMANDA ANUAL	INDICE DE ROTACIÓN	ESTADIA PROMEDIO (MESES)	LEAD TIME (MESES)
CAMARA 400-8ARL TR 87C	5	1099	C	NO	573.5	S/. 3,412.33	987	1.72	7.0	3
CAMARA 1000-20 SUPER BULL PREMIUN TR78A	2	98	C	NO	89.9	S/. 3,830.45	192	2.14	5.6	2
CAMARA 1000R20 SUPER BULL PREMIUN TR78A	2	69	C	NO	46.9	S/. 2,181.63	139	2.96	4.1	2
CAMARA 1100-20 CONCORD PLUS TR78A	4	23	C	NO	19.4	S/. 862.10	29	1.49	8.0	0.1
CAMARA 1100-20 SUPER BULL PREMIUN TR78A	1	128	C	NO	198.8	S/. 10,176.00	415	2.09	5.7	2
CAMARA 1100-20ARL TR78A	5	276	C	NO	443.8	S/. 16,330.00	180	0.41	29.6	3
CAMARA 1100R20 SUPER BULL PREMIUN TR78A	2	133	C	NO	135.0	S/. 7,087.50	272	2.01	6.0	2
CAMARA 1100R22 SUPER BULL PREMIUN TR78A	8	26	C	NO	140.7	S/. 7,624.13	14	0.10	120.6	2
CAMARA 11L-16 SUPER BULL PREMIUN TR15	16	21	C	NO	18.3	S/. 513.33	9	0.49	24.4	2
CAMARA 12.5/80-18 SUPER BULL PREMIUN TR218A	4	29	C	NO	22.8	S/. 910.00	40	1.76	6.8	2
CAMARA 1200-20 CONCORD PLUS	4	35	C	NO	29.5	S/. 1,652.00	51	1.73	6.9	0.1
CAMARA 1200-20 SUPER BULL PREMIUN TR78A	2	84	C	SÍ	105.8	S/. 5,884.33	138	1.30	9.2	2
CAMARA 1200-20ARL TR78A	5	140	C	NO	81.8	S/. 3,335.40	120	1.47	8.2	3
CAMARA 1200-24 SUPER BULL PREMIUN TR78A	4	35	C	NO	17.8	S/. 1,105.67	35	1.96	6.1	2
CAMARA 1200R20 SUPER BULL PREMIUN TR78A	1	152	B	NO	139.3	S/. 7,798.00	489	3.51	3.4	2
CAMARA 14.9/13-24 SUPER BULL PREMIUN TR 218A	16	11	C	NO	8.8	S/. 560.00	4	0.46	26.3	2
CAMARA 14.9/13-28 SUPER BULL PREMIUN	8	21	C	NO	12.4	S/. 912.63	13	1.05	11.5	2
CAMARA 1400-24 TR179A SUPER BULL PREMIUM	8	18	C	NO	9.1	S/. 758.46	11	1.21	9.9	2
CAMARA 18.4/15-38 SUPER BULL PREMIUN TR218A	8	5	C	NO	6.5	S/. 890.50	4	0.62	19.5	2
CAMARA 19.5-24 SUPER BULL PREMIUM TR218A	4	15	C	NO	9.7	S/. 879.67	18	1.86	6.4	2
CAMARA 20.5-25 SUPER BULL PREMIUN TRJ1175C	8	9	C	SÍ	6.2	S/. 937.33	6	0.97	12.3	2
CAMARA 20.8 X 38 NEXEN TR218A	4	6	C	NO	5.3	S/. 1,168.97	5	0.95	12.6	0.1
CAMARA 23.5-25 SUPER BULL PREMIUN TRJ1175C	4	12	C	SÍ	8.0	S/. 1,336.00	15	1.88	6.4	2
CAMARA 26.5-25 SUPER BULL PREMIUN TRJ1175C	8	5	C	NO	3.2	S/. 579.50	4	1.26	9.5	2
CAMARA 275/300-17 GOSTONE TR 4	4	144	C	NO	108.6	S/. 488.63	238	2.19	5.5	0.1
CAMARA 275/300-17FORTUNE TR-4	8	47	C	NO	35.3	S/. 271.07	68	1.93	6.2	0.1
CAMARA 275-18 DURO TR-4	4	38	C	NO	33.2	S/. 328.35	74	2.23	5.4	0.1
CAMARA 275-18 KENDA TR-4	8	26	C	NO	54.9	S/. 538.18	21	0.38	31.4	0.1
CAMARA 275-18 S & M TR-4	6	166	C	NO	165.1	S/. 657.03	177	1.07	11.2	3
CAMARA 275-18 SWALLOW TR4	2	808	C	NO	859.3	S/. 5,241.43	1599	1.86	6.4	2.5
CAMARA 300-17 HUNG-A TR-4	4	519	C	NO	288.8	S/. 2,021.25	441	1.53	7.9	2.5
CAMARA 300-17 KENDA TR-4	2	111	C	SÍ	78.0	S/. 764.40	338	4.33	2.8	0.1
CAMARA 300-17 S & M TR-4	6	550	C	NO	384.0	S/. 1,612.80	410	1.07	11.2	3
CAMARA 300-17 SWALLOW TR4	2	910	B	NO	553.0	S/. 3,483.90	1978	3.58	3.4	2.5
CAMARA 300-18 HUNG-A TR-4	2	1762	B	NO	8545.3	S/. 63,234.85	4334	0.51	23.7	2.5
CAMARA 300-18 KENDA TR-4	1	474	B	SÍ	280.0	S/. 2,660.00	3425	12.23	1.0	0.1
CAMARA 300-18 S & M TR-4	3	5739	A	NO	3168.3	S/. 13,623.48	11024	3.48	3.4	3
CAMARA 300-18 SWALLOW TR4	2	4984	A	SÍ	3665.8	S/. 23,827.38	11198	3.05	3.9	2.5
CAMARA 300-18ARL TR-4	5	1147	C	NO	599.2	S/. 4,290.03	1145	1.91	6.3	3
CAMARA 300-21 KENDA TR-4	8	36	C	NO	29.8	S/. 335.33	36	1.21	9.9	0.1

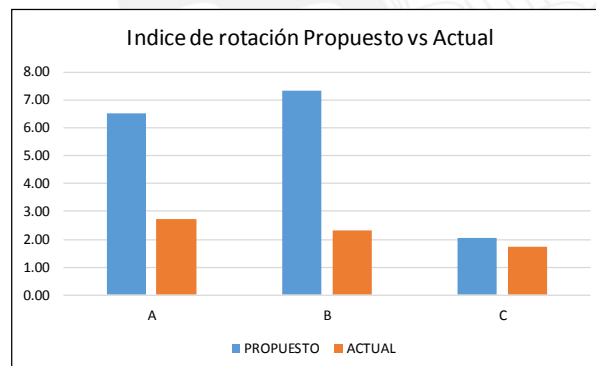
CAMARA 300-21 SWALLOW TR-4	2	364	C	NO	187.8	S/. 1,351.80	762	4.06	3.0	2.5
CAMARA 350-8 S & M TR87C	12	255	C	NO	171.4	S/. 599.96	145	0.85	14.2	3
CAMARA 350-8 SWALLOW TR87C	8	284	C	NO	172.9	S/. 916.46	215	1.24	9.7	2.5
CAMARA 400-8 GOSTONE TR 87C	2	436	C	NO	245.8	S/. 1,302.92	1635	6.65	1.8	0.1
CAMARA 400-8 KENDA TR87C	2	198	C	SÍ	117.8	S/. 958.49	863	7.33	1.6	0.1
CAMARA 400-8 S & M TR87C	3	828	C	NO	633.8	S/. 2,503.31	1122	1.77	6.8	3
CAMARA 400-8 SUPER BULL PREMIUN TR-13	4	115	C	NO	110.1	S/. 847.64	166	1.51	8.0	2
CAMARA 400-8 SUPER BULL PREMIUN TR87C	2	1110	C	NO	1060.9	S/. 8,169.06	2327	2.19	5.5	2
CAMARA 400-8 SWALLOW TR87C	2	1550	B	SÍ	1111.3	S/. 6,556.87	3933	3.54	3.4	2.5
CAMARA 400-8 TRULPER TR 87C	4	213	C	NO	144.6	S/. 650.63	286	1.98	6.1	0.1
CAMARA 400-8M MARELY	16	22	C	NO	8.3	S/. 41.25	15	1.82	6.6	0.1
CAMARA 410-18 GOSTONE	8	33	C	NO	33.5	S/. 284.75	39	1.16	10.3	0.1
CAMARA 410-18 KENDA TR-4	4	49	C	SÍ	28.8	S/. 353.50	84	2.91	4.1	0.1
CAMARA 410-18 S & M TR-4	6	213	C	NO	117.3	S/. 668.33	170	1.45	8.3	3
CAMARA 410-18 SWALLOW TR-4	2	714	B	NO	1933.4	S/. 16,743.39	1798	0.93	12.9	2.5
CAMARA 650-16 SUPER BULL PREMIUN TR177A	2	262	C	NO	225.8	S/. 3,995.78	614	2.72	4.4	2
CAMARA 700-15 CAMEL	4	38	C	NO	64.5	S/. 1,528.65	108	1.67	7.2	0.1
CAMARA 700-15 SUPER BULL PREMIUN TR177A	2	345	B	NO	142.8	S/. 2,592.43	929	6.50	1.8	2
CAMARA 700-15CP CONCORD PLUS TR 177A	4	28	C	NO	19.4	S/. 386.20	57	2.94	4.1	0.1
CAMARA 700-16 CONCORD PLUS	2	64	C	NO	48.5	S/. 921.50	146	3.01	4.0	0.1
CAMARA 700-16 SUPER BULL PREMIUN TR177A	1	1678	A	NO	1231.7	S/. 23,155.33	5752	4.67	2.6	2
CAMARA 700X16 NEXEN	2	56	C	NO	28.5	S/. 698.54	226	7.93	1.5	0.1
CAMARA 750-16 CAMELL TR177A	2	167	C	NO	201.0	S/. 4,087.13	220	1.09	11.0	0.1
CAMARA 750-16 SUPER BULL PREMIUN TR177A	1	1790	A	NO	1186.4	S/. 23,609.69	6583	5.55	2.2	2
CAMARA 750-16D DIAMOND	8	29	C	NO	27.6	S/. 413.75	15	0.54	22.1	0.1
CAMARA 750-16-R SUPER BULL PREMIUN REFORZADA TR177A	4	188	C	NO	139.4	S/. 2,774.39	166	1.19	10.1	2
CAMARA 750X16 NEXEN	2	30	C	NO	14.3	S/. 385.46	114	8.00	1.5	0.1
CAMARA 825-16 SUPER BULL PREMIUN TR177A	1	1577	A	NO	1902.8	S/. 50,995.93	2409	1.27	9.5	2
CAMARA 825-20 SUPER BULL PREMIUN TR177A	4	55	C	NO	27.9	S/. 921.25	75	2.69	4.5	2
CAMARA 825-20C CONCORD PLUS TR177A	16	14	C	NO	13.4	S/. 431.21	5	0.37	32.2	0.1
CAMARA 900-20 SUPER BULL PREMIUN TR175A	4	65	C	NO	34.8	S/. 1,344.83	113	3.25	3.7	2
CAMARA DE BICICLETA 20X1.90/2.125 CST ARO 20	8	53	C	NO	31.0	S/. 139.50	53	1.71	7.0	0.1
CAMARA DE BICICLETA 24X1.90/2.125 CST ARO 24	8	62	C	NO	38.5	S/. 173.25	69	1.79	6.7	0.1
CAMARA DE BICICLETA 26X1.90/2.125 CST ARO 26	4	92	C	NO	50.2	S/. 240.80	204	4.07	3.0	0.1
CAMARA ER-12 CAMELL TR13	8	28	C	SÍ	21.3	S/. 185.73	26	1.22	9.8	0.1
CAMARA ER-12 NEXEN TR-13	4	127	C	NO	89.6	S/. 853.73	202	2.25	5.3	0.1
CAMARA ER-12 SUPER BULL PREMIUN TR-13	1	2612	A	SÍ	1946.9	S/. 15,867.37	8500	4.37	2.7	2
CAMARA ER-12C CONCORD PLUS TR13	2	502	C	NO	452.8	S/. 3,790.22	724	1.60	7.5	0.1
CAMARA ER-13 SUPER BULL PREMIUN TR13	2	594	C	NO	444.5	S/. 4,000.50	1207	2.72	4.4	2
CAMARA ER-15 DIAMOND TR-13	4	67	C	NO	85.5	S/. 790.88	133	1.56	7.7	0.1
CAMARA FR12 ARL	5	462	C	NO	219.4	S/. 1,750.95	374	1.70	7.0	3
CAMARA FR13 ARL	5	361	C	NO	189.3	S/. 1,590.40	282	1.49	8.1	3
CAMARA FR-13 NEXEN TR13	4	54	C	NO	37.7	S/. 458.78	85	2.26	5.3	0.1
CAMARA FR-13 SUPER BULL PREMIUN TR-13	1	3238	A	SÍ	2113.0	S/. 20,918.70	13367	6.33	1.9	2
CAMARA FR-14 SUPER BULL PREMIUN TR-13	1	2198	A	NO	1483.7	S/. 15,578.50	8645	5.83	2.1	2
CAMARA FR-14CP CONCORD PLUS TR 13	4	114	C	NO	91.3	S/. 911.59	110	1.21	10.0	0.1
CAMARA FR-15 DIAMOND	2	104	C	NO	117.3	S/. 1,114.67	295	2.51	4.8	0.1
CAMARA GR-13 CONCORD PLUS TR-13	8	42	C	NO	38.5	S/. 389.24	60	1.56	7.7	0.1
CAMARA GR-14 SUPER BULL PREMIUN TR-13	2	255	C	NO	198.4	S/. 2,420.68	641	3.23	3.7	2
CAMARA KR-14 SUPER BULL PREMIUN TR-13	2	493	B	NO	205.5	S/. 2,774.25	1369	6.66	1.8	2

CAMARA KR-15 NEXEN TR-13	16	10	C	NO	31.8	S/.	665.67	5	0.16	76.2	0.1
CAMARA KR-15 SUPER BULL PREMIUN TR-13	1	979	A	NO	710.2	S/.	10,865.55	3515	4.95	2.4	2
CAMARA KR-15 SUPER BULL TR177A	8	37	C	NO	29.8	S/.	415.58	28	0.94	12.8	2
CAMARA KR-16 SUPER BULL PREMIUN TR-13	1	1266	A	NO	916.3	S/.	14,385.13	4303	4.70	2.6	2
CAMARA KR-16C CAMELL TR13	16	10	C	NO	11.0	S/.	187.00	6	0.55	22.0	0.1
CAMARA KR-16CP CONCORD PLUS TR177A	4	33	C	NO	36.2	S/.	610.13	43	1.19	10.1	0.1
PARCHE COLD PATCH L-24	1	1262	B	NO	2733.7	S/.	5,111.96	6776	2.48	4.8	0.1
PARCHE M-48 EVERWINNER	3	13826	A	SÍ	29134.3	S/.	36,709.16	24287	0.83	14.4	3
PARCHE COLD PATCH S-48	2	1589	C	NO	2108.4	S/.	3,942.74	5560	2.64	4.6	0.1
PARCHE COLD PATCH YP3-219	32	3506	C	SÍ	2559.1	S/.	72.68	938	0.37	32.7	0.1
PARCHE COLD PATCH YP3-221	16	5629	C	NO	2789.3	S/.	160.11	2831	1.01	11.8	0.1
PARCHE CP-201 CLASSIC	48	5634	C	NO	15129.1	S/.	347.97	1196	0.08	151.8	3
PARCHE CP-202 CLASSIC	12	10515	C	NO	58154.0	S/.	2,326.16	6805	0.12	102.5	3
PARCHE CP-203 CLASSIC	12	6401	C	NO	35252.8	S/.	2,044.66	4275	0.12	99.0	3
PARCHE CP-401 CLASSIC	6	31259	C	NO	345098.9	S/.	18,635.34	29376	0.09	141.0	3
PARCHE CP-402 CLASSIC	6	7996	C	NO	93508.4	S/.	7,574.18	7749	0.08	144.8	3
PARCHE CP-403 CLASSIC	6	3864	C	NO	38791.8	S/.	4,907.17	4228	0.11	110.1	3
PARCHE CP-404 CLASSIC	12	3150	C	NO	20916.9	S/.	4,706.31	1833	0.09	136.9	3
PARCHE CP-501 DE LONA NINGBO	6	1509	C	NO	4402.6	S/.	4,666.74	1702	0.39	31.0	3
PARCHE CP-502 DE LONA NINGBO	6	489	C	NO	1609.3	S/.	2,414.00	539	0.33	35.8	3
PARCHE CP-503 DE LONA NINGBO	12	434	C	NO	1260.5	S/.	1,966.38	300	0.24	50.4	3
PARCHE DC107-25 NINGBO	12	40079	C	NO	32158.0	S/.	733.20	17664	0.55	21.8	3
PARCHE DC107-30 NINGBO	6	38190	C	NO	21489.2	S/.	870.31	30562	1.42	8.4	3
PARCHE DC107-40 NINGBO	12	21260	C	NO	11758.0	S/.	423.29	11358	0.97	12.4	3
PARCHE DC107-52 NINGBO	12	8571	C	NO	4777.3	S/.	435.69	4391	0.92	13.1	3
PARCHE DC107-65 NINGBO	6	2750	C	SÍ	892.5	S/.	152.62	3414	3.83	3.1	3
PARCHE DC107-75 NINGBO	6	3611	C	NO	4512.4	S/.	1,015.29	4025	0.89	13.5	3
PARCHE DC108-34X24 NINGBO	6	439	C	NO	224.1	S/.	322.01	440	1.96	6.1	3
PARCHE DC108-72X40 NINGBO	12	370	C	NO	210.7	S/.	307.36	254	1.21	10.0	3
PARCHE DC110-30 NINGBO	3	123593	A	NO	77307.7	S/.	4,762.15	178916	2.31	5.2	3
PARCHE DC110-40 NINGBO	3	33391	B	NO	18728.8	S/.	1,730.54	47015	2.51	4.8	3
PARCHE DC110-52 NINGBO	6	15316	C	NO	9328.9	S/.	1,347.10	13445	1.44	8.3	3
PARCHE DC110-75 NINGBO	12	3160	C	NO	1646.0	S/.	422.53	1839	1.12	10.7	3
PARCHE EWQ-09 CLASSIC	6	6577	C	NO	67536.3	S/.	7,429.00	6174	0.09	131.3	3
PARCHE P-2 PANESA	8	4229	C	NO	3362.5	S/.	420.31	4242	1.26	9.5	0.1
PARCHE PARA PISCINA #62068 EN STICKERS	16	56	C	NO	32.6	S/.	81.46	28	0.86	14.0	0.1
PARCHE PARA PISCINA 59632 NP	8	145	C	SÍ	81.1	S/.	137.84	121	1.49	8.0	0.1
PARCHE REM-00 RUZI	32	646	C	NO	478.4	S/.	88.51	170	0.36	33.8	1.5
PARCHE REM-01 RUZI	8	2081	C	NO	1103.1	S/.	275.77	1976	1.79	6.7	1.5
PARCHE REM-02 RUZI	64	187	C	NO	157.8	S/.	40.25	34	0.22	55.7	1.5
PARCHE REM-03 RUZI	16	790	C	NO	561.9	S/.	143.29	390	0.69	17.3	1.5
PARCHE REM-04 RUZI	16	1978	C	NO	1452.8	S/.	444.54	848	0.58	20.6	1.5
PARCHE SCHRADER SBF1	2	22841	B	NO	12993.1	S/.	2,598.62	49420	3.80	3.2	1.5
PARCHE SCHRADER SBF2	2	8885	B	SÍ	3585.1	S/.	1,649.14	27675	7.72	1.6	1.5
PARCHE SCHRADER SBF3	2	10976	B	SÍ	6457.6	S/.	3,784.14	23682	3.67	3.3	1.5
PARCHE SCHRADER SBMC2	2	7560	A	SÍ	3825.4	S/.	6,885.75	20868	5.46	2.2	1.5
PARCHE SCHRADER SBMC3	2	4248	A	SÍ	1926.3	S/.	4,719.52	12035	6.25	1.9	1.5
PARCHE SCHRADER SBMC4	2	2909	B	NO	1477.2	S/.	5,170.08	7822	5.30	2.3	1.5
PARCHE SCHRADER SBMC5	2	1758	B	SÍ	802.8	S/.	5,619.25	4763	5.93	2.0	1.5
PARCHE SCHRADER SBMC6	2	518	B	NO	1188.5	S/.	16,995.55	1448	1.22	9.8	1.5

PARCHE SCHRADER SBMC7	2	159	C	NO	216.8	S/. 4,553.50	436	2.01	6.0	1.5
PARCHE SCHRADER SBMC8	2	65	C	NO	1093.6	S/. 33,463.65	154	0.14	85.2	1.5
PARCHE SCHRADER SBMC9	8	30	C	NO	127.9	S/. 3,837.50	26	0.20	59.0	1.5
PARCHE SCHRADER SBR0	2	63960	A	SÍ	34372.1	S/. 3,437.21	136976	3.99	3.0	1.5
PARCHE SCHRADER SBR1	2	84206	A	SÍ	37209.7	S/. 4,837.26	239546	6.44	1.9	1.5
PARCHE SCHRADER SBR10	4	505	C	NO	310.6	S/. 614.96	628	2.02	5.9	1.5
PARCHE SCHRADER SBR2	2	15088	A	SÍ	6886.6	S/. 2,152.06	41559	6.03	2.0	1.5
PARCHE SCHRADER SBR3	2	10662	B	NO	5347.9	S/. 1,871.77	31425	5.88	2.0	1.5
PARCHE SCHRADER SBR4	2	6115	B	SÍ	2483.9	S/. 1,198.49	17375	7.00	1.7	1.5
PARCHE SCHRADER SBR5	4	1771	C	NO	1872.8	S/. 1,217.29	2682	1.43	8.4	1.5
PARCHE SCHRADER SBR6	4	498	C	NO	875.5	S/. 1,786.02	825	0.94	12.7	1.5
PARCHE SCHRADER SBR7	4	1746	C	SÍ	1191.0	S/. 919.45	1726	1.45	8.3	1.5
PARCHE SCHRADER SBR8	4	2193	C	NO	1552.8	S/. 1,770.23	2037	1.31	9.1	1.5
PARCHE SCHRADER SBRB1	2	48790	B	SÍ	25819.8	S/. 2,452.88	110559	4.28	2.8	1.5
PARCHE SCHRADER SBRB2	4	3749	C	SÍ	2018.5	S/. 409.76	5364	2.66	4.5	1.5
PARCHE SCHRADER SBRC10	2	6271	A	SÍ	2954.1	S/. 4,726.53	15540	5.26	2.3	1.5
PARCHE SCHRADER SBRC12	2	2514	B	SÍ	948.2	S/. 2,844.50	7728	8.15	1.5	1.5
PARCHE SCHRADER SBRC14	2	2014	B	SÍ	862.3	S/. 2,500.53	5504	6.38	1.9	1.5
PARCHE SCHRADER SBRC20	2	1029	C	NO	1643.8	S/. 3,616.43	2763	1.68	7.1	1.5
PARCHE SCHRADER SBRC22	4	473	C	NO	1003.3	S/. 3,661.86	800	0.80	15.0	1.5
PARCHE SCHRADER SBRC24	8	137	C	NO	276.9	S/. 1,052.28	135	0.49	24.6	1.5
PARCHE SCHRADER SBRC40	2	564	B	NO	1653.5	S/. 10,251.70	1831	1.11	10.8	1.5
PARCHE SCHRADER SBRC42	2	301	C	NO	485.9	S/. 4,859.17	894	1.84	6.5	1.5
PARCHE SCHRADER SBRC44	4	207	C	NO	142.7	S/. 1,783.33	275	1.93	6.2	1.5
PARCHE TFMD-02 TIREFIX	4	1637	C	NO	1041.9	S/. 1,646.23	1901	1.82	6.6	1.5
PARCHE TFMD-03 TIREFIX	4	961	C	NO	634.2	S/. 1,331.75	1110	1.75	6.9	1.5
PARCHE TFMD-04 TIREFIX	8	440	C	NO	357.9	S/. 1,163.23	186	0.52	23.1	1.5
PARCHE TFMD-05 TIREFIX	8	356	C	NO	285.5	S/. 1,627.35	154	0.54	22.2	1.5
PARCHE TFR-110 TIREFIX	4	1349	C	NO	1019.8	S/. 1,504.13	1231	1.21	9.9	1.5
PARCHE TFR-112 TIREFIX	4	917	C	NO	616.9	S/. 1,326.37	1034	1.68	7.2	1.5
PARCHE TFR-114 TIREFIX	4	929	C	NO	553.9	S/. 1,412.49	1123	2.03	5.9	1.5
PARCHE TFR-120 TIREFIX	8	341	C	NO	273.3	S/. 738.00	142	0.52	23.1	1.5
PARCHE VD10 VIPAL	2	43	C	NO	42.5	S/. 3,421.72	86	2.02	5.9	0.1
PARCHE VF-3 VIPAL	4	3865	C	NO	3238.7	S/. 1,463.75	5256	1.62	7.4	0.1
PARCHE VIPAL R-00	1	25044	A	NO	12890.6	S/. 3,027.48	149178	11.57	1.0	0.1
PARCHE VIPAL R-01	1	29202	A	NO	13459.5	S/. 3,506.47	213104	15.83	0.8	0.1
PARCHE VIPAL R-02	1	5641	B	NO	2716.8	S/. 1,060.58	38871	14.31	0.8	0.1
PARCHE VIPAL R-03	1	3361	B	NO	1540.3	S/. 1,007.69	22533	14.63	0.8	0.1
PARCHE VIPAL R-04	1	2582	B	NO	954.2	S/. 771.71	20921	21.93	0.5	0.1
PARCHE VIPAL R-05	2	801	C	NO	410.3	S/. 770.01	3291	8.02	1.5	0.1
PARCHE VIPAL R-06	4	377	C	NO	217.0	S/. 583.04	764	3.52	3.4	0.1
PARCHE VIPAL RAC08	4	187	C	NO	262.7	S/. 575.24	372	1.42	8.5	0.1
PARCHE VIPAL RAC10	1	1306	B	NO	694.6	S/. 1,522.32	7737	11.14	1.1	0.1
PARCHE VIPAL RAC12	1	483	C	NO	210.7	S/. 781.78	3470	16.47	0.7	0.1
PARCHE VIPAL RAC14	2	481	C	NO	265.8	S/. 1,145.34	2128	8.01	1.5	0.1

PARCHE VIPAL RAC20	2	127	C	NO	61.9	S/.	382.98	490	7.91	1.5	0.1	S/.	6.19
PARCHE VIPAL RAC22	4	153	C	NO	74.0	S/.	461.17	334	4.51	2.7	0.1	S/.	6.23
PARCHE VIPAL RAC24	16	44	C	NO	36.8	S/.	282.54	19	0.52	23.3	0.1	S/.	7.67
PARCHE VIPAL RAC25	4	54	C	NO	40.0	S/.	341.60	85	2.13	5.6	0.1	S/.	8.54
PARCHE VIPAL RAC35	2	110	C	NO	69.3	S/.	835.59	432	6.23	1.9	0.1	S/.	12.05
PARCHE VIPAL RAC40	2	70	C	NO	37.9	S/.	408.42	280	7.38	1.6	0.1	S/.	10.77
PARCHE VIPAL RAC42	8	43	C	NO	47.2	S/.	648.56	49	1.04	11.6	0.1	S/.	13.75
PARCHE VIPAL RAC44	8	76	C	NO	67.2	S/.	1,108.93	42	0.63	19.2	0.1	S/.	16.51
PARCHE VIPAL RBM-01	2	14008	B	NO	6758.4	S/.	1,233.88	57585	8.52	1.4	0.1	S/.	0.18
PARCHE VIPAL RBM-02	8	1412	C	Sí	824.1	S/.	215.51	1609	1.95	6.1	0.1	S/.	0.26
PARCHE VIPAL RT-3	2	3383	C	NO	1574.3	S/.	903.71	14760	9.38	1.3	0.1	S/.	0.57
PARCHE VIPAL VD1	1	5443	A	NO	2159.4	S/.	3,699.23	40335	18.68	0.6	0.1	S/.	1.71
PARCHE VIPAL VD2	1	2018	A	NO	836.3	S/.	2,116.30	14244	17.03	0.7	0.1	S/.	2.53
PARCHE VIPAL VD3	1	791	B	NO	321.2	S/.	1,198.24	6163	19.19	0.6	0.1	S/.	3.73
PARCHE VIPAL VD4	1	465	B	NO	305.3	S/.	1,799.48	3629	11.89	1.0	0.1	S/.	5.90
PARCHE VIPAL VD5	1	447	B	NO	253.3	S/.	2,348.48	2974	11.74	1.0	0.1	S/.	9.27
PARCHE VIPAL VD6	1	190	C	NO	209.6	S/.	3,575.51	1114	5.32	2.3	0.1	S/.	17.06
PARCHE VIPAL VD7	2	92	C	NO	71.7	S/.	1,797.38	284	3.96	3.0	0.1	S/.	25.08
PARCHE VIPAL VD8	2	51	C	Sí	34.7	S/.	1,428.05	132	3.81	3.2	0.1	S/.	41.19
PARCHE VIPAL VD9	8	6	C	Sí	4.7	S/.	244.54	5	1.07	11.2	0.1	S/.	52.40
PARCHE VIPAL VF-6	2	1953	C	NO	1371.4	S/.	1,144.89	5336	3.89	3.1	0.1	S/.	0.83
PARCHE VIPAL VF-8	1	2111	B	Sí	1104.5	S/.	1,296.17	12190	11.04	1.1	0.1	S/.	1.17
					35 STOCKOUTS		S/.	787,640.02					

CLASE	INDICE DE ROTACIÓN	
	PROPUESTO	ACTUAL
A	6.54	2.74
B	7.33	2.31
C	2.03	1.74







**Anexo 25. Análisis económico**

### Anexo 25.1. Costos relevantes de la política actual

**COSTO TOTAL RELEVANTE - ACTUAL** AÑO: 1

**COSTO PEDIR ANUAL** S/. 10,231.31

# DE IMPORTACIÓN	PROVEEDOR	COSTO DE PEDIDO
1	NINGBO	S/. 728.52
2	SWALLOW	S/. 623.05
3	HUNG-A	S/. 712.84
4	SCHRADER	S/. 557.54
5	NINGBO	S/. 1,085.14
6	EVERWINNER	S/. 648.53
7	SUPER BULL	S/. 565.19
8	TIREFIX	S/. 397.22
9	ARL	S/. 832.86
10	S&M	S/. 737.42
11	SCHRADER	S/. 379.12
<b>TOTAL</b>		S/. 7,267.43

NACIONALES	
# PEDIDOS	12
COSTO PROMEDIO	S/. 246.99
COSTO ANUAL	S/. 2,963.88

**COSTO REVISAR ANUAL** S/. 63,575.45 Detalle de cálculo en Anexo 17.1

**INVENTARIO PROMEDIO** S/. 1,358,550.81

**COSTO POR FALTANTES** S/. 63,048.87 Detalle de cálculo en Anexo 19.5(correspondiente a curva de intercambio)

### Anexo 25.2. Costos relevantes de la política propuesta

**COSTO TOTAL RELEVANTE - PROPUESTA**

AÑO: 1

Valores obtenidos del anexo de Análisis de Impacto de Mejoras en el primer año (Anexo 21)

PRODUCTO	COSTO POR FALTANTES	Nº PEDIDOS	COSTO PEDIR	COSTO REVISIÓN	INVENTARIO PROMEDIO	COSTO ANUAL DE MANTENER
CAMARA 400-8ARL TR 87C	S/. -	3	S/. 262.44	S/. 38.15	S/. 3,412.33	S/. 723.80
CAMARA 1000-20 SUPER BULL PREMIUM TR78A	S/. -	6	S/. 113.47	S/. 76.29	S/. 3,830.45	S/. 812.49
CAMARA 1000R20 SUPER BULL PREMIUM TR78A	S/. -	6	S/. 113.47	S/. 76.29	S/. 2,181.63	S/. 462.75
CAMARA 1100-20 CONCORD PLUS TR78A	S/. 266.40	3	S/. 14.58	S/. 38.15	S/. 862.10	S/. 182.86
CAMARA 1100-20 SUPER BULL PREMIUM TR78A	S/. 5,939.20	12	S/. 226.93	S/. 152.58	S/. 10,176.00	S/. 2,158.46
CAMARA 1100-20ARL TR78A	S/. -	3	S/. 300.89	S/. 38.15	S/. 16,330.00	S/. 3,463.81
CAMARA 1100R20 SUPER BULL PREMIUM TR78A	S/. 2,625.00	6	S/. 113.47	S/. 76.29	S/. 7,087.50	S/. 1,503.35
CAMARA 1100R22 SUPER BULL PREMIUM TR78A	S/. -	2	S/. 37.82	S/. 25.43	S/. 7,624.13	S/. 1,617.18
CAMARA 11L-16 SUPER BULL PREMIUM TR15	S/. -	1	S/. 18.91	S/. 12.72	S/. 513.33	S/. 108.88
CAMARA 12.5/80-18 SUPER BULL PREMIUM TR218A	S/. -	3	S/. 56.73	S/. 38.15	S/. 910.00	S/. 193.02
CAMARA 1200-20 CONCORD PLUS	S/. 504.00	3	S/. 14.58	S/. 38.15	S/. 1,652.00	S/. 350.41
CAMARA 1200-20 SUPER BULL PREMIUM TR78A	S/. 4,003.20	6	S/. 113.47	S/. 76.29	S/. 5,884.33	S/. 1,248.14
CAMARA 1200-20ARL TR78A	S/. -	3	S/. 212.45	S/. 38.15	S/. 3,335.40	S/. 707.48
CAMARA 1200-24 SUPER BULL PREMIUM TR78A	S/. 620.00	3	S/. 56.73	S/. 38.15	S/. 1,105.67	S/. 234.53
CAMARA 1200R20 SUPER BULL PREMIUM TR78A	S/. 392.00	12	S/. 226.93	S/. 152.58	S/. 7,798.00	S/. 1,654.06
CAMARA 14.9/13-24 SUPER BULL PREMIUM TR 218A	S/. -	1	S/. 18.91	S/. 12.72	S/. 560.00	S/. 118.78
CAMARA 14.9/13-28 SUPER BULL PREMIUM	S/. -	2	S/. 37.82	S/. 25.43	S/. 912.63	S/. 193.58
CAMARA 1400-24 TR179A SUPER BULL PREMIUM	S/. 167.00	2	S/. 37.82	S/. 25.43	S/. 758.46	S/. 160.88
CAMARA 18.4/15-38 SUPER BULL PREMIUM TR218A	S/. -	2	S/. 37.82	S/. 25.43	S/. 890.50	S/. 188.89
CAMARA 19.5-24 SUPER BULL PREMIUM TR218A	S/. -	3	S/. 56.73	S/. 38.15	S/. 879.67	S/. 186.59
CAMARA 20.5-25 SUPER BULL PREMIUM TRJ1175C	S/. -	2	S/. 37.82	S/. 25.43	S/. 937.33	S/. 198.82
CAMARA 20.8 X 38 NEXEN TR218A	S/. -	3	S/. 14.58	S/. 38.15	S/. 1,168.97	S/. 247.95
CAMARA 23.5-25 SUPER BULL PREMIUM TRJ1175C	S/. -	3	S/. 56.73	S/. 38.15	S/. 1,336.00	S/. 283.38
CAMARA 26.5-25 SUPER BULL PREMIUM TRJ1175C	S/. -	2	S/. 37.82	S/. 25.43	S/. 579.50	S/. 122.92
CAMARA 275/300-17 GOSTONE TR 4	S/. -	3	S/. 14.58	S/. 38.15	S/. 488.63	S/. 103.64
CAMARA 275/300-17FORTUNE TR-4	S/. 484.47	2	S/. 9.72	S/. 25.43	S/. 271.07	S/. 57.50
CAMARA 275-18 DURO TR-4	S/. -	3	S/. 14.58	S/. 38.15	S/. 328.35	S/. 69.65
CAMARA 275-18 KENDA TR-4	S/. -	2	S/. 9.72	S/. 25.43	S/. 538.18	S/. 114.16
CAMARA 275-18 S & M TR-4	S/. -	2	S/. 38.98	S/. 25.43	S/. 657.03	S/. 139.37
CAMARA 275-18 SWALLOW TR4	S/. -	6	S/. 125.28	S/. 76.29	S/. 5,241.43	S/. 1,111.78
CAMARA 300-17 HUNG-A TR-4	S/. -	3	S/. 63.42	S/. 38.15	S/. 2,021.25	S/. 428.73
CAMARA 300-17 KENDA TR-4	S/. -	6	S/. 29.16	S/. 76.29	S/. 764.40	S/. 162.14
CAMARA 300-17 S & M TR-4	S/. -	2	S/. 38.98	S/. 25.43	S/. 1,612.80	S/. 342.10
CAMARA 300-17 SWALLOW TR4	S/. -	6	S/. 153.03	S/. 76.29	S/. 3,483.90	S/. 738.98
CAMARA 300-18 HUNG-A TR-4	S/. -	6	S/. 513.90	S/. 76.29	S/. 63,234.85	S/. 13,412.94
CAMARA 300-18 KENDA TR-4	S/. -	12	S/. 58.32	S/. 152.58	S/. 2,660.00	S/. 564.22
CAMARA 300-18 S & M TR-4	S/. -	4	S/. 1,234.65	S/. 50.86	S/. 13,623.48	S/. 2,889.72
CAMARA 300-18 SWALLOW TR4	S/. -	6	S/. 1,263.15	S/. 76.29	S/. 23,827.38	S/. 5,054.10
CAMARA 300-18ARL TR-4	S/. -	3	S/. 381.47	S/. 38.15	S/. 4,290.03	S/. 909.97
CAMARA 300-21 KENDA TR-4	S/. -	2	S/. 9.72	S/. 25.43	S/. 335.33	S/. 71.13
CAMARA 300-21 SWALLOW TR-4	S/. -	6	S/. 125.28	S/. 76.29	S/. 1,351.80	S/. 286.73
CAMARA 350-8 S & M TR87C	S/. -	2	S/. 38.98	S/. 25.43	S/. 599.96	S/. 127.26
CAMARA 350-8 SWALLOW TR87C	S/. -	2	S/. 41.76	S/. 25.43	S/. 916.46	S/. 194.39
CAMARA 400-8 GOSTONE TR 87C	S/. 424.00	6	S/. 29.16	S/. 76.29	S/. 1,302.92	S/. 276.37
CAMARA 400-8 KENDA TR87C	S/. -	6	S/. 29.16	S/. 76.29	S/. 958.49	S/. 203.31
CAMARA 400-8 S & M TR87C	S/. -	4	S/. 77.96	S/. 50.86	S/. 2,503.31	S/. 530.99
CAMARA 400-8 SUPER BULL PREMIUM TR-13	S/. -	3	S/. 56.73	S/. 38.15	S/. 847.64	S/. 179.80
CAMARA 400-8 SUPER BULL PREMIUM TR87C	S/. 4,034.80	6	S/. 113.47	S/. 76.29	S/. 8,169.06	S/. 1,732.76
CAMARA 400-8 SWALLOW TR87C	S/. -	6	S/. 350.73	S/. 76.29	S/. 6,556.87	S/. 1,390.80
CAMARA 400-8 TRULPER TR 87C	S/. -	3	S/. 14.58	S/. 38.15	S/. 650.63	S/. 138.01
CAMARA 400-8M MARELY	S/. -	1	S/. 4.86	S/. 12.72	S/. 41.25	S/. 8.75
CAMARA 410-18 GOSTONE	S/. -	2	S/. 9.72	S/. 25.43	S/. 284.75	S/. 60.40
CAMARA 410-18 KENDA TR-4	S/. -	3	S/. 14.58	S/. 38.15	S/. 353.50	S/. 74.98
CAMARA 410-18 S & M TR-4	S/. -	2	S/. 38.98	S/. 25.43	S/. 668.33	S/. 141.76
CAMARA 410-18 SWALLOW TR-4	S/. -	6	S/. 210.24	S/. 76.29	S/. 16,743.39	S/. 3,551.49
CAMARA 650-16 SUPER BULL PREMIUM TR177A	S/. 601.80	6	S/. 113.47	S/. 76.29	S/. 3,995.78	S/. 847.56
CAMARA 700-15 CAMEL	S/. 1,137.60	3	S/. 14.58	S/. 38.15	S/. 1,528.65	S/. 324.25
CAMARA 700-15 SUPER BULL PREMIUM TR177A	S/. -	6	S/. 113.47	S/. 76.29	S/. 2,592.43	S/. 549.89
CAMARA 700-15CP CONCORD PLUS TR 177A	S/. 576.81	3	S/. 14.58	S/. 38.15	S/. 386.20	S/. 81.92
CAMARA 700-16 CONCORD PLUS	S/. 114.00	6	S/. 29.16	S/. 76.29	S/. 921.50	S/. 195.46

CAMARA 700-16 SUPER BULL PREMIUN TR177A	S/. 2,838.80	12	S/. 781.47	S/. 152.58	S/. 23,155.33	S/. 4,911.55
CAMARA 700X16 NEXEN	S/. 24.51	6	S/. 29.16	S/. 76.29	S/. 698.54	S/. 148.17
CAMARA 750-16 CAMELL TR177A	S/. -	6	S/. 29.16	S/. 76.29	S/. 4,087.13	S/. 866.93
CAMARA 750-16 SUPER BULL PREMIUN TR177A	S/. -	12	S/. 978.96	S/. 152.58	S/. 23,609.69	S/. 5,007.93
CAMARA 750-16D DIAMOND	S/. -	2	S/. 9.72	S/. 25.43	S/. 413.75	S/. 87.76
CAMARA 750-16-R SUPER BULL PREMIUN REFORZADA TR177A	S/. -	3	S/. 56.73	S/. 38.15	S/. 2,774.39	S/. 588.49
CAMARA 750X16 NEXEN	S/. 108.20	6	S/. 29.16	S/. 76.29	S/. 385.46	S/. 81.76
CAMARA 825-16 SUPER BULL PREMIUN TR177A	S/. -	12	S/. 405.07	S/. 152.58	S/. 50,995.93	S/. 10,816.91
CAMARA 825-20 SUPER BULL PREMIUN TR177A	S/. -	3	S/. 56.73	S/. 38.15	S/. 921.25	S/. 195.41
CAMARA 825-20C CONCORD PLUS TR177A	S/. -	1	S/. 4.86	S/. 12.72	S/. 431.21	S/. 91.47
CAMARA 900-20 SUPER BULL PREMIUN TR175A	S/. -	3	S/. 56.73	S/. 38.15	S/. 1,344.83	S/. 285.26
CAMARA DE BICICLETA 20X1.90/2.125 CST ARO 20	S/. -	2	S/. 9.72	S/. 25.43	S/. 139.50	S/. 29.59
CAMARA DE BICICLETA 24X1.90/2.125 CST ARO 24	S/. -	2	S/. 9.72	S/. 25.43	S/. 173.25	S/. 36.75
CAMARA DE BICICLETA 26X1.90/2.125 CST ARO 26	S/. 14.40	3	S/. 14.58	S/. 38.15	S/. 240.80	S/. 51.08
CAMARA ER-12 CAMELL TR13	S/. -	2	S/. 9.72	S/. 25.43	S/. 185.73	S/. 39.39
CAMARA ER-12 NEXEN TR-13	S/. 781.46	3	S/. 14.58	S/. 38.15	S/. 853.73	S/. 181.09
CAMARA ER-12 SUPER BULL PREMIUN TR-13	S/. -	12	S/. 445.79	S/. 152.58	S/. 15,867.37	S/. 3,365.68
CAMARA ER-12C CONCORD PLUS TR13	S/. 1,699.11	6	S/. 29.16	S/. 76.29	S/. 3,790.22	S/. 803.95
CAMARA ER-13 SUPER BULL PREMIUN TR13	S/. 567.00	6	S/. 113.47	S/. 76.29	S/. 4,000.50	S/. 848.56
CAMARA ER-15 DIAMOND TR-13	S/. -	3	S/. 14.58	S/. 38.15	S/. 790.88	S/. 167.76
CAMARA FR12 ARL	S/. -	3	S/. 114.61	S/. 38.15	S/. 1,750.95	S/. 371.40
CAMARA FR13 ARL	S/. -	3	S/. 83.10	S/. 38.15	S/. 1,590.40	S/. 337.34
CAMARA FR-13 NEXEN TR13	S/. -	3	S/. 14.58	S/. 38.15	S/. 458.78	S/. 97.31
CAMARA FR-13 SUPER BULL PREMIUN TR-13	S/. -	12	S/. 990.46	S/. 152.58	S/. 20,918.70	S/. 4,437.13
CAMARA FR-14 SUPER BULL PREMIUN TR-13	S/. -	12	S/. 631.47	S/. 152.58	S/. 15,578.50	S/. 3,304.41
CAMARA FR-14CP CONCORD PLUS TR 13	S/. -	3	S/. 14.58	S/. 38.15	S/. 911.59	S/. 193.36
CAMARA FR-15 DIAMOND	S/. 161.50	6	S/. 29.16	S/. 76.29	S/. 1,114.67	S/. 236.44
CAMARA GR-13 CONCORD PLUS TR-13	S/. 181.98	2	S/. 9.72	S/. 25.43	S/. 389.24	S/. 82.56
CAMARA GR-14 SUPER BULL PREMIUN TR-13	S/. 439.20	6	S/. 113.47	S/. 76.29	S/. 2,420.68	S/. 513.46
CAMARA KR-14 SUPER BULL PREMIUN TR-13	S/. -	6	S/. 113.47	S/. 76.29	S/. 2,774.25	S/. 588.45
CAMARA KR-15 NEXEN TR-13	S/. -	1	S/. 4.86	S/. 12.72	S/. 665.67	S/. 141.20
CAMARA KR-15 SUPER BULL PREMIUN TR-13	S/. -	12	S/. 311.94	S/. 152.58	S/. 10,865.55	S/. 2,304.73
CAMARA KR-15 SUPER BULL TR177A	S/. -	2	S/. 37.82	S/. 25.43	S/. 415.58	S/. 88.15
CAMARA KR-16 SUPER BULL PREMIUN TR-13	S/. -	12	S/. 430.95	S/. 152.58	S/. 14,385.13	S/. 3,051.27
CAMARA KR-16C CAMELL TR13	S/. -	1	S/. 4.86	S/. 12.72	S/. 187.00	S/. 39.67
CAMARA KR-16CP CONCORD PLUS TR177A	S/. -	3	S/. 14.58	S/. 38.15	S/. 610.13	S/. 129.42
PARCHE COLD PATCH L-24	S/. 684.42	12	S/. 58.32	S/. 152.58	S/. 5,111.96	S/. 1,084.31
PARCHE M-48 EVERWINNER	S/. -	4	S/. 947.88	S/. 50.86	S/. 36,709.16	S/. 7,786.50
PARCHE COLD PATCH S-48	S/. -	6	S/. 29.16	S/. 76.29	S/. 3,942.74	S/. 836.31
PARCHE COLD PATCH YP3-219	S/. -	1	S/. 4.86	S/. 12.72	S/. 72.68	S/. 15.42
PARCHE COLD PATCH YP3-221	S/. -	1	S/. 4.86	S/. 12.72	S/. 160.11	S/. 33.96
PARCHE CP-201 CLASSIC	S/. -	1	S/. 18.65	S/. 12.72	S/. 347.97	S/. 73.81
PARCHE CP-202 CLASSIC	S/. -	2	S/. 37.31	S/. 25.43	S/. 2,326.16	S/. 493.41
PARCHE CP-203 CLASSIC	S/. -	2	S/. 37.31	S/. 25.43	S/. 2,044.66	S/. 433.70
PARCHE CP-401 CLASSIC	S/. -	2	S/. 37.31	S/. 25.43	S/. 18,635.34	S/. 3,952.80
PARCHE CP-402 CLASSIC	S/. -	2	S/. 37.31	S/. 25.43	S/. 7,574.18	S/. 1,606.58
PARCHE CP-403 CLASSIC	S/. -	2	S/. 37.31	S/. 25.43	S/. 4,907.17	S/. 1,040.87
PARCHE CP-404 CLASSIC	S/. -	2	S/. 37.31	S/. 25.43	S/. 4,706.31	S/. 998.27
PARCHE CP-501 DE LONA NINGBO	S/. -	2	S/. 37.31	S/. 25.43	S/. 4,666.74	S/. 989.88
PARCHE CP-502 DE LONA NINGBO	S/. -	2	S/. 37.31	S/. 25.43	S/. 2,414.00	S/. 512.04
PARCHE CP-503 DE LONA NINGBO	S/. -	2	S/. 37.31	S/. 25.43	S/. 1,966.38	S/. 417.10
PARCHE DC107-25 NINGBO	S/. -	2	S/. 37.31	S/. 25.43	S/. 733.20	S/. 155.52
PARCHE DC107-30 NINGBO	S/. -	2	S/. 37.31	S/. 25.43	S/. 870.31	S/. 184.60
PARCHE DC107-40 NINGBO	S/. -	2	S/. 37.31	S/. 25.43	S/. 423.29	S/. 89.78
PARCHE DC107-52 NINGBO	S/. -	2	S/. 37.31	S/. 25.43	S/. 435.69	S/. 92.41
PARCHE DC107-65 NINGBO	S/. -	2	S/. 37.31	S/. 25.43	S/. 152.62	S/. 32.37
PARCHE DC107-75 NINGBO	S/. -	2	S/. 37.31	S/. 25.43	S/. 1,015.29	S/. 215.36
PARCHE DC108-34X24 NINGBO	S/. -	2	S/. 37.31	S/. 25.43	S/. 322.01	S/. 68.30
PARCHE DC108-72X40 NINGBO	S/. -	2	S/. 37.31	S/. 25.43	S/. 307.36	S/. 65.20
PARCHE DC110-30 NINGBO	S/. -	4	S/. 308.84	S/. 50.86	S/. 4,762.15	S/. 1,010.12
PARCHE DC110-40 NINGBO	S/. -	4	S/. 90.92	S/. 50.86	S/. 1,730.54	S/. 367.07
PARCHE DC110-52 NINGBO	S/. -	2	S/. 37.31	S/. 25.43	S/. 1,347.10	S/. 285.74
PARCHE DC110-75 NINGBO	S/. -	2	S/. 37.31	S/. 25.43	S/. 422.53	S/. 89.62
PARCHE EWQ-09 CLASSIC	S/. -	2	S/. 37.31	S/. 25.43	S/. 7,429.00	S/. 1,575.79
PARCHE P-2 PANESA	S/. -	2	S/. 9.72	S/. 25.43	S/. 420.31	S/. 89.15

PARCHE PARA PISCINA #62068 EN STICKERS	S/.	-	1	S/.	4.86	S/.	12.72	S/.	81.46	S/.	17.28
PARCHE PARA PISCINA 59632 NP	S/.	-	2	S/.	9.72	S/.	25.43	S/.	137.84	S/.	29.24
PARCHE REM-00 RUZI	S/.	-	1	S/.	15.97	S/.	12.72	S/.	88.51	S/.	18.77
PARCHE REM-01 RUZI	S/.	-	2	S/.	31.94	S/.	25.43	S/.	275.77	S/.	58.49
PARCHE REM-02 RUZI	S/.	-	1	S/.	15.97	S/.	12.72	S/.	40.25	S/.	8.54
PARCHE REM-03 RUZI	S/.	-	1	S/.	15.97	S/.	12.72	S/.	143.29	S/.	30.39
PARCHE REM-04 RUZI	S/.	-	1	S/.	15.97	S/.	12.72	S/.	444.54	S/.	94.29
PARCHE SCHRADER SBF1	S/.	318.00	6	S/.	89.07	S/.	76.29	S/.	2,598.62	S/.	551.20
PARCHE SCHRADER SBF2	S/.	-	6	S/.	89.07	S/.	76.29	S/.	1,649.14	S/.	349.80
PARCHE SCHRADER SBF3	S/.	347.50	6	S/.	93.53	S/.	76.29	S/.	3,784.14	S/.	802.67
PARCHE SCHRADER SBMC2	S/.	-	6	S/.	383.37	S/.	76.29	S/.	6,885.75	S/.	1,460.56
PARCHE SCHRADER SBMC3	S/.	-	6	S/.	284.53	S/.	76.29	S/.	4,719.52	S/.	1,001.07
PARCHE SCHRADER SBMC4	S/.	969.50	6	S/.	258.73	S/.	76.29	S/.	5,170.08	S/.	1,096.64
PARCHE SCHRADER SBMC5	S/.	1,190.00	6	S/.	331.71	S/.	76.29	S/.	5,619.25	S/.	1,191.92
PARCHE SCHRADER SBMC6	S/.	-	6	S/.	177.10	S/.	76.29	S/.	16,995.55	S/.	3,604.98
PARCHE SCHRADER SBMC7	S/.	-	6	S/.	89.07	S/.	76.29	S/.	4,553.50	S/.	965.86
PARCHE SCHRADER SBMC8	S/.	-	6	S/.	89.07	S/.	76.29	S/.	33,463.65	S/.	7,098.08
PARCHE SCHRADER SBMC9	S/.	-	2	S/.	29.69	S/.	25.43	S/.	3,837.50	S/.	813.98
PARCHE SCHRADER SBRO	S/.	411.80	6	S/.	91.33	S/.	76.29	S/.	3,437.21	S/.	729.08
PARCHE SCHRADER SBR1	S/.	-	6	S/.	304.79	S/.	76.29	S/.	4,837.26	S/.	1,026.05
PARCHE SCHRADER SBR10	S/.	-	3	S/.	44.54	S/.	38.15	S/.	614.96	S/.	130.44
PARCHE SCHRADER SBR2	S/.	107.81	6	S/.	89.07	S/.	76.29	S/.	2,152.06	S/.	456.48
PARCHE SCHRADER SBR3	S/.	649.60	6	S/.	89.07	S/.	76.29	S/.	1,871.77	S/.	397.03
PARCHE SCHRADER SBR4	S/.	-	6	S/.	89.07	S/.	76.29	S/.	1,198.49	S/.	254.22
PARCHE SCHRADER SBR5	S/.	-	3	S/.	44.54	S/.	38.15	S/.	1,217.29	S/.	258.20
PARCHE SCHRADER SBR6	S/.	-	3	S/.	44.54	S/.	38.15	S/.	1,786.02	S/.	378.84
PARCHE SCHRADER SBR7	S/.	-	3	S/.	44.54	S/.	38.15	S/.	919.45	S/.	195.03
PARCHE SCHRADER SBR8	S/.	-	3	S/.	44.54	S/.	38.15	S/.	1,770.23	S/.	375.49
PARCHE SCHRADER SBRB1	S/.	-	6	S/.	89.07	S/.	76.29	S/.	2,452.88	S/.	520.29
PARCHE SCHRADER SBRB2	S/.	-	3	S/.	44.54	S/.	38.15	S/.	409.76	S/.	86.91
PARCHE SCHRADER SBRC10	S/.	-	6	S/.	227.98	S/.	76.29	S/.	4,726.53	S/.	1,002.56
PARCHE SCHRADER SBRC12	S/.	-	6	S/.	207.42	S/.	76.29	S/.	2,844.50	S/.	603.36
PARCHE SCHRADER SBRC14	S/.	-	6	S/.	119.04	S/.	76.29	S/.	2,500.53	S/.	530.39
PARCHE SCHRADER SBRC20	S/.	-	6	S/.	89.07	S/.	76.29	S/.	3,616.43	S/.	767.09
PARCHE SCHRADER SBRC22	S/.	-	3	S/.	44.54	S/.	38.15	S/.	3,661.86	S/.	776.73
PARCHE SCHRADER SBRC24	S/.	-	2	S/.	29.69	S/.	25.43	S/.	1,052.28	S/.	223.20
PARCHE SCHRADER SBRC40	S/.	-	6	S/.	89.07	S/.	76.29	S/.	10,251.70	S/.	2,174.52
PARCHE SCHRADER SBRC42	S/.	-	6	S/.	89.07	S/.	76.29	S/.	4,859.17	S/.	1,030.69
PARCHE SCHRADER SBRC44	S/.	-	3	S/.	44.54	S/.	38.15	S/.	1,783.33	S/.	378.27
PARCHE TFMD-02 TIREFIX	S/.	-	3	S/.	47.91	S/.	38.15	S/.	1,646.23	S/.	349.19
PARCHE TFMD-03 TIREFIX	S/.	-	3	S/.	47.91	S/.	38.15	S/.	1,331.75	S/.	282.48
PARCHE TFMD-04 TIREFIX	S/.	-	2	S/.	31.94	S/.	25.43	S/.	1,163.23	S/.	246.74
PARCHE TFMD-05 TIREFIX	S/.	-	2	S/.	31.94	S/.	25.43	S/.	1,627.35	S/.	345.18
PARCHE TFRC-110 TIREFIX	S/.	-	3	S/.	47.91	S/.	38.15	S/.	1,504.13	S/.	319.05
PARCHE TFRC-112 TIREFIX	S/.	-	3	S/.	47.91	S/.	38.15	S/.	1,326.37	S/.	281.34
PARCHE TFRC-114 TIREFIX	S/.	-	3	S/.	47.91	S/.	38.15	S/.	1,412.49	S/.	299.61
PARCHE TFRC-120 TIREFIX	S/.	-	2	S/.	31.94	S/.	25.43	S/.	738.00	S/.	156.54
PARCHE VD10 VIPAL	S/.	-	6	S/.	29.16	S/.	76.29	S/.	3,421.72	S/.	725.79
PARCHE VF-3 VIPAL	S/.	-	3	S/.	14.58	S/.	38.15	S/.	1,463.75	S/.	310.48
PARCHE VIPAL R-00	S/.	-	12	S/.	58.32	S/.	152.58	S/.	3,027.48	S/.	642.17
PARCHE VIPAL R-01	S/.	-	12	S/.	116.07	S/.	152.58	S/.	3,506.47	S/.	743.77
PARCHE VIPAL R-02	S/.	476.65	12	S/.	58.32	S/.	152.58	S/.	1,060.58	S/.	224.96
PARCHE VIPAL R-03	S/.	448.13	12	S/.	58.32	S/.	152.58	S/.	1,007.69	S/.	213.74
PARCHE VIPAL R-04	S/.	435.12	12	S/.	58.32	S/.	152.58	S/.	771.71	S/.	163.69
PARCHE VIPAL R-05	S/.	150.15	6	S/.	29.16	S/.	76.29	S/.	770.01	S/.	163.33
PARCHE VIPAL R-06	S/.	-	3	S/.	14.58	S/.	38.15	S/.	583.04	S/.	123.67
PARCHE VIPAL RAC08	S/.	-	3	S/.	14.58	S/.	38.15	S/.	575.24	S/.	122.02
PARCHE VIPAL RAC10	S/.	876.68	12	S/.	58.32	S/.	152.58	S/.	1,522.32	S/.	322.90
PARCHE VIPAL RAC12	S/.	749.62	12	S/.	58.32	S/.	152.58	S/.	781.78	S/.	165.83
PARCHE VIPAL RAC14	S/.	461.01	6	S/.	29.16	S/.	76.29	S/.	1,145.34	S/.	242.94
PARCHE VIPAL RAC20	S/.	-	6	S/.	29.16	S/.	76.29	S/.	382.98	S/.	81.23
PARCHE VIPAL RAC22	S/.	-	3	S/.	14.58	S/.	38.15	S/.	461.17	S/.	97.82
PARCHE VIPAL RAC24	S/.	-	1	S/.	4.86	S/.	12.72	S/.	282.54	S/.	59.93
PARCHE VIPAL RAC25	S/.	-	3	S/.	14.58	S/.	38.15	S/.	341.60	S/.	72.46
PARCHE VIPAL RAC35	S/.	156.67	6	S/.	29.16	S/.	76.29	S/.	835.59	S/.	177.24

PARCHE VIPAL RAC40	S/. -	6	S/. 29.16	S/. 76.29	S/. 408.42	S/. 86.63
PARCHE VIPAL RAC42	S/. -	2	S/. 9.72	S/. 25.43	S/. 648.56	S/. 137.57
PARCHE VIPAL RAC44	S/. -	2	S/. 9.72	S/. 25.43	S/. 1,108.93	S/. 235.22
PARCHE VIPAL RBM-01	S/. 86.90	6	S/. 29.16	S/. 76.29	S/. 1,233.88	S/. 261.72
PARCHE VIPAL RBM-02	S/. -	2	S/. 9.72	S/. 25.43	S/. 215.51	S/. 45.71
PARCHE VIPAL RT-3	S/. -	6	S/. 29.16	S/. 76.29	S/. 903.71	S/. 191.69
PARCHE VIPAL VD1	S/. -	12	S/. 181.77	S/. 152.58	S/. 3,699.23	S/. 784.66
PARCHE VIPAL VD2	S/. -	12	S/. 58.32	S/. 152.58	S/. 2,116.30	S/. 448.90
PARCHE VIPAL VD3	S/. 466.36	12	S/. 58.32	S/. 152.58	S/. 1,198.24	S/. 254.16
PARCHE VIPAL VD4	S/. -	12	S/. 58.32	S/. 152.58	S/. 1,799.48	S/. 381.69
PARCHE VIPAL VD5	S/. 991.92	12	S/. 58.32	S/. 152.58	S/. 2,348.48	S/. 498.14
PARCHE VIPAL VD6	S/. 2,507.83	12	S/. 58.32	S/. 152.58	S/. 3,575.51	S/. 758.41
PARCHE VIPAL VD7	S/. -	6	S/. 29.16	S/. 76.29	S/. 1,797.38	S/. 381.25
PARCHE VIPAL VD8	S/. 1,318.20	6	S/. 29.16	S/. 76.29	S/. 1,428.05	S/. 302.91
PARCHE VIPAL VD9	S/. -	2	S/. 9.72	S/. 25.43	S/. 244.54	S/. 51.87
PARCHE VIPAL VF-6	S/. 129.40	6	S/. 29.16	S/. 76.29	S/. 1,144.89	S/. 242.85
PARCHE VIPAL VF-8	S/. 131.44	12	S/. 58.32	S/. 152.58	S/. 1,296.17	S/. 274.94
	<b>S/. 42,771.16</b>	<b>957</b>	<b>S/. 21,612.98</b>	<b>S/. 12,168.34</b>	<b>S/. 787,640.02</b>	<b>S/. 167,068.82</b>



### Anexo 25.3. Inversión del proyecto

#### INVERSIÓN REQUERIDA

##### INICIAL (Año 0)

	Costo Unitario	Cantidad requerida	Costo total
<b>CAPACITACIONES</b>			
Administrativos (H-H)	S/. 109.38	80	S/. 8,750.00
Operarios de almacén (H-H)	S/. 65.10	120	S/. 7,812.50
Costo Asesor Capacitador	S/. 120.00	200	S/. 24,000.00
<b>SOFTWARE</b>			
Minitab 17	S/. 4,933.50	1	S/. 4,933.50
Eviews 9	S/. 5,758.50	1	S/. 5,758.50
<b>INMOBILIARIO</b>			
Computadora	S/. 1,900.00	3	S/. 5,700.00
Licencias	S/. 1,650.00	3	S/. 4,950.00
Instalación	S/. 350.00	3	S/. 1,050.00
Escritorio	S/. 250.00	3	S/. 750.00
			S/. 46,904.50

Incluye desarrollo de plan de adaptación de mejora para implementación paulatina. Cotización del asesor logístico "DISELO" reportada por JV Importaciones.

Precio Office Professional 2016

##### CONSTANTE (Año 1 y 2)

PERSONAL	Costo Unitario	Cantidad requerida	Costo total
Analista Planeamiento	S/. 37,440.00	1	S/. 37,440.00
Analista COMEX	S/. 51,840.00	1	S/. 51,840.00
Analista Almacén	S/. 43,200.00	1	S/. 43,200.00
			S/. 132,480.00

Sueldos anuales prorrateados al tiempo dedicado a las dos familias del proyecto

SOFTWARE	Renovación	Cantidad requerida	Costo total
Minitab 17	S/. 2,953.50	1	S/. 2,953.50
Eviews 9	S/. 1,864.50	1	S/. 1,864.50
Office 365	S/. 190.00	3	S/. 570.00
			S/. 5,388.00

### Anexo 25.4. Resultados de la evaluación económica

#### ANÁLISIS DE RESULTADOS ECONÓMICOS

##### AÑO 1

	COSTO PEDIR	COSTO REVISIÓN	COSTO MANTENER	COSTO POR FALTANTES	TRC ANUAL
TRC ACTUAL	S/. 10,231.31	S/. 63,575.45	S/. 288,166.52	S/. 63,575.45	S/. 425,548.73
TRC PROPUESTO	S/. 21,612.98	S/. 12,168.34	S/. 167,068.82	S/. 42,771.16	S/. 243,621.31
AHORROS/COSTOS	S/. -11,381.67	S/. 51,407.11	S/. 121,097.70	S/. 20,804.29	<b>S/. 181,927.42</b>

##### AÑO 2

	COSTO PEDIR	COSTO REVISIÓN	COSTO MANTENER	COSTO POR FALTANTES	TRC ANUAL
TRC ACTUAL	S/. 10,231.31	S/. 63,575.45	S/. 288,166.52	S/. 63,048.87	S/. 425,022.15
TRC PROPUESTO	S/. 20,928.83	S/. 11,740.32	S/. 97,511.59	S/. 38,566.09	S/. 168,746.82
AHORROS/COSTOS	S/. -10,697.52	S/. 51,835.13	S/. 190,654.93	S/. 24,482.78	<b>S/. 256,275.33</b>

#### FLUJO DE CAJA

	AÑO 0	AÑO 1	AÑO 2
AHORROS		S/. 181,927.42	S/. 256,275.33
INVERSIÓN/COSTOS	S/. 46,904.50	S/. 154,668.00	S/. 170,134.80
RESULTADO POR PERÍODO	S/. -46,904.50	S/. 27,259.42	S/. 86,140.53

COK	12%
TIR	67.7%
VAN	S/. 46,104.97