

## Hydraulic Pumps - Service Information TB

Denison Vane - Flügelzellen - Palettes - Palette - Paletas

aerospace  
climate control  
electromechanical  
filtration  
fluid & gas handling  
hydraulics  
pneumatics  
process control  
sealing & shielding

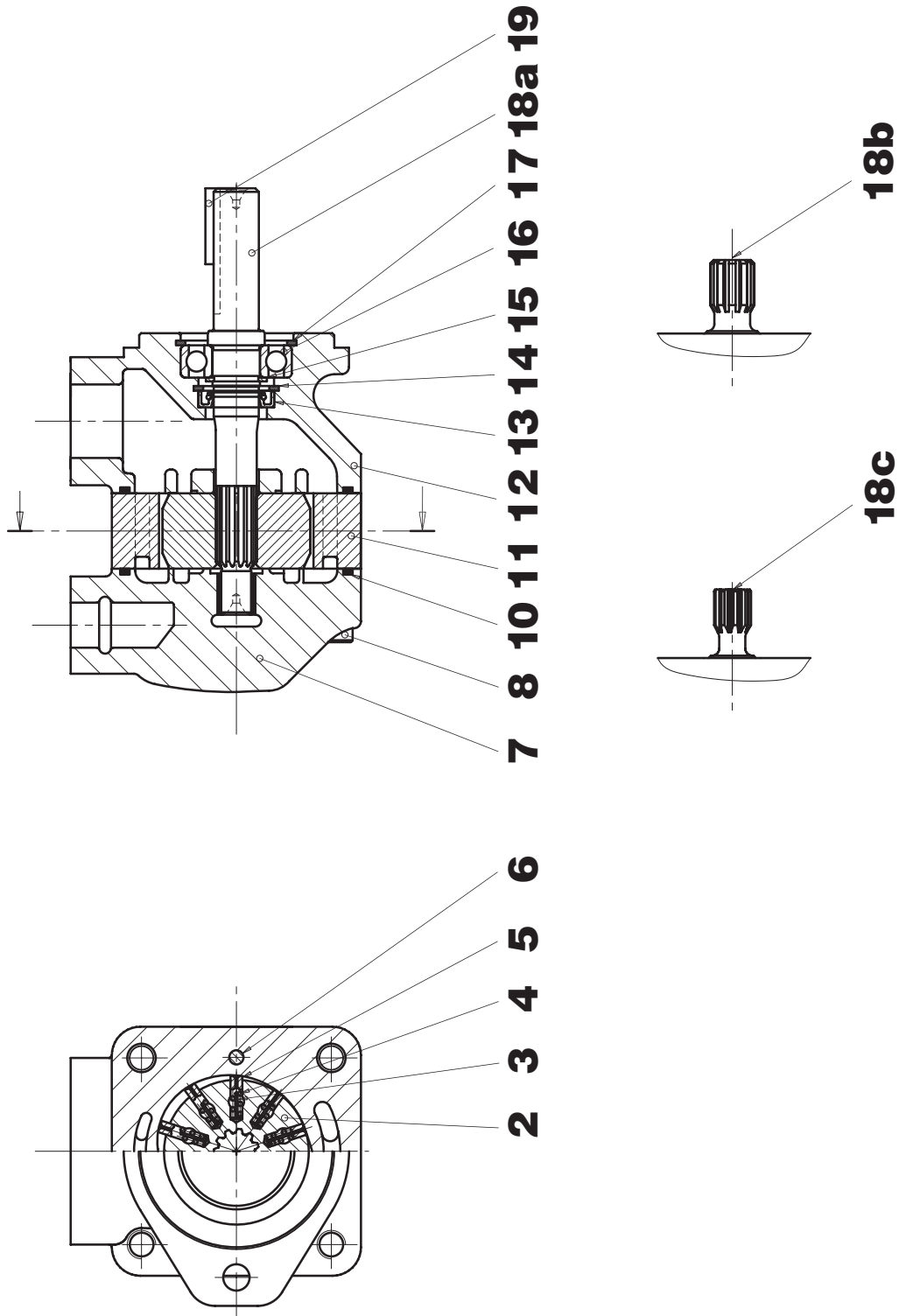


ENGINEERING YOUR SUCCESS.

**TB**

Item - Pos. - Réf. - Pos.	8
Mounting torque	110 Nm 81 ft.lbs
Anziehdrehmoment	
Couple de serrage	
Coppia di serraggio	
Par de apriete	

Recommended repair kits and assy's are bold printed  
 Empfohlene Austausch - Baugruppen sind fett gedruckt  
 Les pochettes de rechange recommandées sont imprimées en caractères gras  
 I kit di ricambio consigliati sono indicati in grassetto  
 Los juegos de reparacion recomendados y los conjuntos, estan en negrita



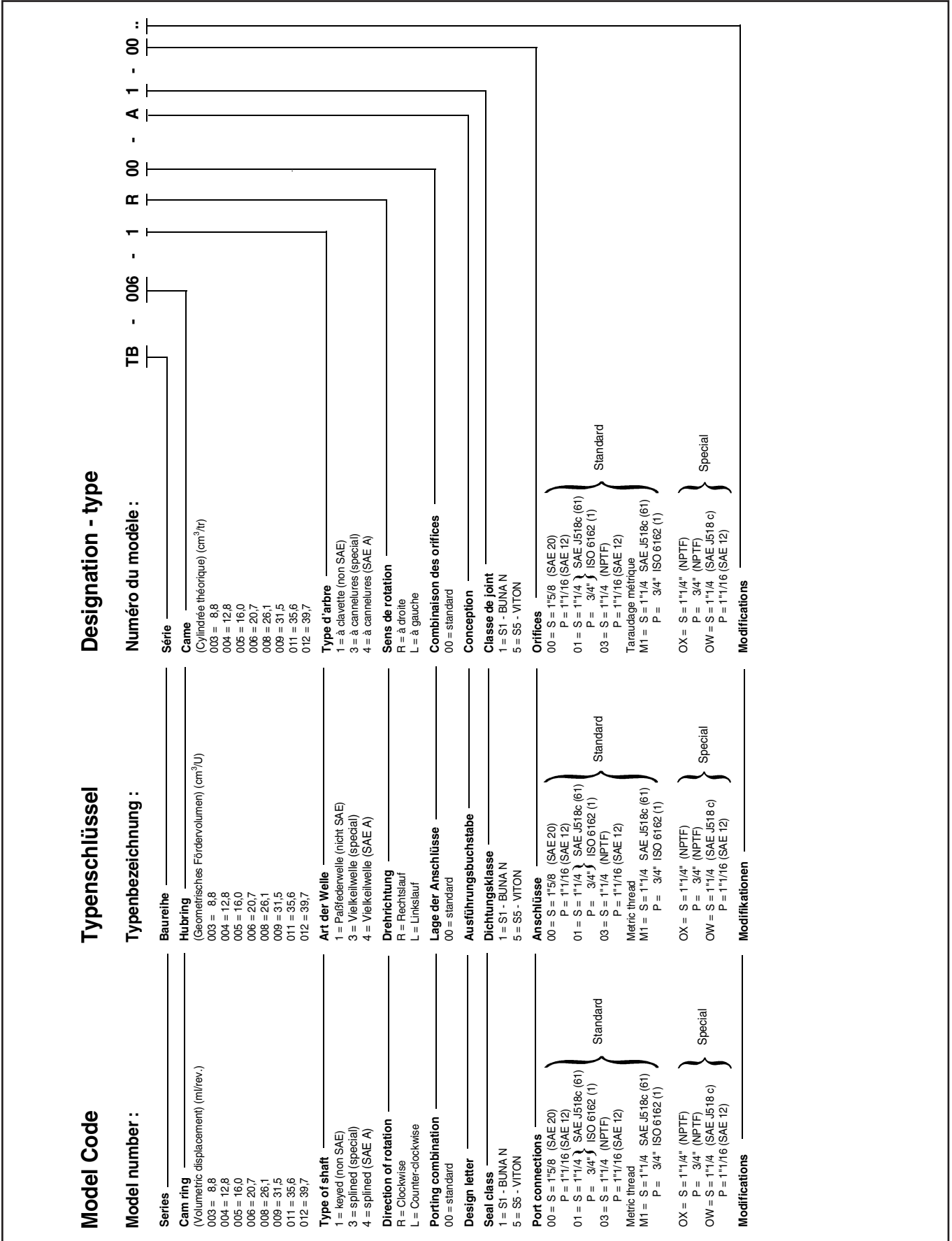
## Spare part list

## Series TB, Denison Vane Pumps

Item Pos. Ref. Pos.	Description Descrizione	Benennung Description	Description	Part N° Teil N° Code N° cod. N° Referencia	Qty Stück Qté C.ta Cant.
2	Rotor insert ass'y Insieme rotore	Rotor Conjunto rotor	Rotor ass.	A 034-44872-0	1
3	Spring guide Guida molla	Federführung	Guide de ressort	A 034-44875-0	30
4	Spring vane Molla	Feder für Flügel Muelle paletta	Ressort de palette	A 034-44874-0	30
5	Vane Paletta	Flügel Paleta	Palette	A 034-44873-0	10
6	Dowel pin Spina	Zentrierstift Pasador	Goupille	A 324-21228-0	2
7	End cap ass'y (Flange 3/4" SAE) Ins. coperchio (Flangia 3/4" SAE)	Gehäuse baugruppe (Flansch 3/4" SAE) Conjunto bocas (SAE 3/4")	Chapeau arrière (bride 3/4" SAE)	S24-31214-0	1
	End cap ass'y (Port SAE 12) Ins. coperchio (connessioni SAE 12)	Gehäuse baugruppe (Anschlüsse SAE 12) Conjunto bocas (bocas SAE 12)	Chapeau arrière (orifice SAE 12)	S24-31215-0	1
8	Screw Vite	Schraube Tornillo	Vis	361-12304-3	4
10	Sq. section seal Guarnizione	Dichting Junta seccion cuadrada	Joint section carrée	E 691-10153-0	2
11	Cam ring 003 Anello camma 003	Hubring 003 Aro volumetrico 003	Came 003	A 034-66625-0	1
	Cam ring 004 Anello camma 004	Hubring 004 Aro volumetrico 004	Came 004	A 034-66632-0	1
	Cam ring 005 Anello camma 005	Hubring 005 Aro volumetrico 005	Came 005	A 034-66620-0	1
	Cam ring 006 Anello camma 006	Hubring 006 Aro volumetrico 006	Came 006	A 034-66633-0	1
	Cam ring 008 Anello camma 008	Hubring 008 Aro volumetrico 008	Came 008	A 034-66642-0	1
	Cam ring 009 Anello camma 009	Hubring 009 Aro volumetrico 009	Came 009	A 034-66634-0	1
	Cam ring 011 Anello camma 011	Hubring 011 Aro volumetrico 011	Came 011	A 034-66643-0	1
	Cam ring 012 Anello camma 012	Hubring 012 Aro volumetrico 012	Came 012	A 034-66635-0	1
	Mounting cap (Flange 1"1/4 SAE) Coperchio (flangia 1"1/4 SAE)	Deckel (Flansch 1"1/4 SAE) Tapa de montaje (SAE 1"1/4)	Chapeau de montage (bride 1"1/4 SAE)	034-66628-0	1
	Mounting cap (Port SAE 20) Coperchio (connessioni SAE 20)	Deckel (Anschlüsse SAE 20) Tapa de montaje (bocas SAE 20)	Chapeau de montage (orifice SAE 20)	034-66629-0	1
	Mounting cap (Port 1"1/4 NPTF) Coperchio (connessioni 1"1/4 NPTF)	Deckel (Anschlüsse 1"1/4 NPTF) Tapa de montaje (bocas 1"1/4 NPTF)	Chapeau de montage (orifice 1"1/4 NPTF)	034-66637-0	1
	13	Shaft seal (S1 - 0,7 bar) Paraolio (S1 - 0,7 bar)	Simmering (S1 - 0,7 bar) Retén eje (S1 - 0,7 bar)	Joint d'arbre (S1 - 0,7 bar)	E 620-00017-3
Shaft seal (S5 - 0,7 bar) Paraolio (S5 - 0,7 bar)		Simmering (S5 - 0,7 bar) Retén eje (S5 - 0,7 bar)	Joint d'arbre (S5 - 0,7 bar)	E 620-00021-3	1

## Spare part list

Item No. Ref. Pos.	Description Descrizione	Benennung Description	Description	Part N° Code N° Cod. N° Referencia	Qty Stock Olla Cant.
14	Retaining ring Anello elastico	Sicherungsring Aro retencion	Circlips	356-30125-0	1
15	Retaining ring Anello elastico	Sicherungsring Aro retencion	Circlips	356-31078-0	1
16	Ball bearing Cuscinetto a sfere	Kugellager Cojinete de bolas	Roulement à billes	230-82149-0	1
17	Retaining ring Anello elastico	Sicherungsring Aro retencion	Circlips	356-30185-0	1
18a	Shaft keyed (code 1) Albero a chiavetta (codice 1)	Paßfedernwelle (Typ 1) Eje chaveteado (codigo 1)	Arbre à clavette (code 1)	034-86636-0	1
18b	Shaft splined (code 3) (special) Albero a scanalato (codice 3) (special)	Viellwelle (Typ 3) (special) Eje estriado (codigo 3) (special)	Arbre à cannelures (code 3) (special)	034-86640-0	1
18c	Shaft splined (code 4) Albero a scanalato (codice 4)	Viellwelle (Typ 4) Eje estriado (codigo 4)	Arbre à cannelures (code 4)	034-86693-0	1
19	Key (code 1) Chiavetta (codice 1)	Paßfeder (Typ 1) Chaveta (codigo 1)	Clavette (code 1)	034-49622-0	1
	<b>REPAIR KIT KIT DI RICAMBIO</b>	<b>AUSTAUSCH-BAUGRUPPEN CONJUNTO REPARACION</b>	<b>POCHETTES RECHANGES</b>		
A	Kit 003 Cartuccia 003	Pumpeneinsatz 003 Juego 003	Cartouche 003	S24-45608-0	1
A	Kit 004 Cartuccia 004	Pumpeneinsatz 004 Juego 004	Cartouche 004	S24-31219-0	1
A	Kit 005 Cartuccia 005	Pumpeneinsatz 005 Juego 005	Cartouche 005	S24-45096-0	1
A	Kit 006 Cartuccia 006	Pumpeneinsatz 006 Juego 006	Cartouche 006	S24-31220-0	1
A	Kit 008 Cartuccia 008	Pumpeneinsatz 008 Juego 008	Cartouche 008	S24-31385-0	1
A	Kit 009 Cartuccia 009	Pumpeneinsatz 009 Juego 009	Cartouche 009	S24-31221-0	1
A	Kit 011 Cartuccia 011	Pumpeneinsatz 011 Juego 011	Cartouche 011	S24-31386-0	1
A	Kit 012 Cartuccia 012	Pumpeneinsatz 012 Juego 012	Cartouche 012	S24-31222-0	1
B	Shaft and key ass'y (code 1) Ins. albero (codice 1)	Baugruppe (Welle mit Paßfeder) (Typ 1) Conjunto eje chaveta (codigo 1)	Arbre et clavette ass. (code 1)	S24-31223-0	1
C	Shaft and bearing ass'y (code 3) Ins. albero (codice 3)	Baugruppe (Welle u. Lager) (Typ 3) Conjunto eje cojinete (codigo 3)	Arbre et roulement ass. (code 3)	S24-31382-0	1
D	Shaft and bearing ass'y (code 4) Ins. albero (codice 4)	Baugruppe (Welle u. Lager) (Typ 4) Conjunto eje cojinete (codigo 4)	Arbre et roulement ass. (code 4)	S24-33566-0	1
E	Seal kit (S1 - 0,7 bar) Serie guarnizioni (S1 - 0,7 bar)	Dichtringsatz (S1 - 0,7 bar) Juego de juntas (S1 - 0,7 bar)	Pochette de joints (S1 - 0,7 bar)	S24-31234-0	1
E	Seal kit (S5 - 0,7 bar) Serie guarnizioni (S5 - 0,7 bar)	Dichtringsatz (S5 - 0,7 bar) Juego de juntas (S5 - 0,7 bar)	Pochette de joints (S5 - 0,7 bar)	S24-31234-5	1



**Model Code**

Model number :

- Series**
- 003 = 8,8
  - 004 = 12,8
  - 005 = 16,0
  - 006 = 20,7
  - 008 = 26,1
  - 009 = 31,5
  - 011 = 35,6
  - 012 = 39,7

- Cam ring**  
(Volumetric displacement) (ml/rev.)
- 003 = 8,8
  - 004 = 12,8
  - 005 = 16,0
  - 006 = 20,7
  - 008 = 26,1
  - 009 = 31,5
  - 011 = 35,6
  - 012 = 39,7

- Type of shaft**
- 1 = keyed (non SAE)
  - 3 = splined (special)
  - 4 = splined (SAE A)

- Direction of rotation**
- R = Clockwise
  - L = Counter-clockwise

- Porting combination**
- 00 = standard

- Design letter**
- 1 = S1 - BUNA N
  - 5 = S5 - VITON

- Seal class**
- 00 = S = 1"5/8 (SAE 20)
  - P = 1"1/16 (SAE 12)
  - 01 = S = 1"1/4 (SAE J518c (61))
  - P = 3/4" ISO 6162 (1)
  - 03 = S = 1"1/4 (NPTF)
  - P = 1"1/16 (SAE 12)

- Port connections**
- 00 = S = 1"5/8 (SAE 20)
  - P = 1"1/16 (SAE 12)
  - 01 = S = 1"1/4 (SAE J518c (61))
  - P = 3/4" ISO 6162 (1)
  - 03 = S = 1"1/4 (NPTF)
  - P = 1"1/16 (SAE 12)

- Metric thread**
- M1 = S = 1"1/4 SAE J518c (61)
  - P = 3/4" ISO 6162 (1)

- OX = S = 1"1/4" (NPTF)**
- P = 3/4" (NPTF)
  - OW = S = 1"1/4 (SAE J518 c)
  - P = 1"1/16 (SAE 12)

**Modifications**

**Typenschlüssel**

Typenbezeichnung :

- Baureihe**
- 003 = 8,8
  - 004 = 12,8
  - 005 = 16,0
  - 006 = 20,7
  - 008 = 26,1
  - 009 = 31,5
  - 011 = 35,6
  - 012 = 39,7

- Hubring**  
(Geometrisches Fördervolumen) (cm<sup>3</sup>/U)
- 003 = 8,8
  - 004 = 12,8
  - 005 = 16,0
  - 006 = 20,7
  - 008 = 26,1
  - 009 = 31,5
  - 011 = 35,6
  - 012 = 39,7

- Art der Welle**
- 1 = Paßfedervelle (nicht SAE)
  - 3 = Vielkeilwelle (special)
  - 4 = Vielkeilwelle (SAE A)

- Drehrichtung**
- R = Rechtslauf
  - L = Linkslauf

- Lage der Anschlüsse**
- 00 = standard

- Ausführungsbuchstabe**
- 1 = S1 - BUNA N
  - 5 = S5 - VITON

- Dichtungsklasse**
- 00 = S = 1"5/8 (SAE 20)
  - P = 1"1/16 (SAE 12)
  - 01 = S = 1"1/4 (SAE J518c (61))
  - P = 3/4" ISO 6162 (1)
  - 03 = S = 1"1/4 (NPTF)
  - P = 1"1/16 (SAE 12)

- Metric thread**
- M1 = S = 1"1/4 SAE J518c (61)
  - P = 3/4" ISO 6162 (1)

- OX = S = 1"1/4" (NPTF)**
- P = 3/4" (NPTF)
  - OW = S = 1"1/4 (SAE J518 c)
  - P = 1"1/16 (SAE 12)

- Modifikationen**

**Designation - type**

Numéro du modèle :

- Série**
- 003 = 8,8
  - 004 = 12,8
  - 005 = 16,0
  - 006 = 20,7
  - 008 = 26,1
  - 009 = 31,5
  - 011 = 35,6
  - 012 = 39,7

- Came**  
(Cylindrée théorique) (cm<sup>3</sup>/tr)
- 003 = 8,8
  - 004 = 12,8
  - 005 = 16,0
  - 006 = 20,7
  - 008 = 26,1
  - 009 = 31,5
  - 011 = 35,6
  - 012 = 39,7

- Type d'arbre**
- 1 = à clavette (non SAE)
  - 3 = à cannelures (special)
  - 4 = à cannelures (SAE A)

- Sens de rotation**
- R = à droite
  - L = à gauche

- Combinaison des orifices**
- 00 = standard

- Conception**
- 1 = S1 - BUNA N
  - 5 = S5 - VITON

- Classe de joint**
- 00 = S = 1"5/8 (SAE 20)
  - P = 1"1/16 (SAE 12)
  - 01 = S = 1"1/4 (SAE J518c (61))
  - P = 3/4" ISO 6162 (1)
  - 03 = S = 1"1/4 (NPTF)
  - P = 1"1/16 (SAE 12)

- Taraudage métrique**
- M1 = S = 1"1/4 SAE J518c (61)
  - P = 3/4" ISO 6162 (1)

- OX = S = 1"1/4" (NPTF)**
- P = 3/4" (NPTF)
  - OW = S = 1"1/4 (SAE J518 c)
  - P = 1"1/16 (SAE 12)

- Modifications**



**Designazione**

**Sigla :**

**Serie** \_\_\_\_\_  
**Tipo di cartuccia** \_\_\_\_\_  
 (Cilindrata) (ml/giro)  
 003 = 8,8  
 004 = 12,8  
 005 = 16,0  
 006 = 20,7  
 008 = 26,1  
 009 = 31,5  
 011 = 35,6  
 012 = 39,7

**Tipo di albero** \_\_\_\_\_  
 1 = a chiavetta (no SAE)  
 3 = scanalato (special)  
 4 = scanalato (SAE A)

**Senso di rotazione** \_\_\_\_\_  
 R = Orolio  
 L = Antiorario

**Orientamento delle bocche** \_\_\_\_\_  
 00 = standard

**Disegno** \_\_\_\_\_  
**Tipo di guarnizioni** \_\_\_\_\_  
 1 = S1 - BUNA N  
 5 = S5 - VITON

**Dimensioni delle bocche** \_\_\_\_\_  
 00 = S = 1"5/8 (SAE 20)  
 P = 1"1/16 (SAE 12)  
 01 = S = 1"1/4 } SAE J518c (61)  
 P = 3/4" } ISO 6162 (1) } Standard  
 03 = S = 1"1/4 (NPTF)  
 P = 1"1/16 (SAE 12)  
 Metric thread  
 M1 = S = 1"1/4 SAE J518c (61)  
 P = 3/4" ISO 6162 (1)  
 OX = S = 1"1/4" (NPTF)  
 P = 3/4" (NPTF)  
 OW = S = 1"1/4 (SAE J518 c)  
 P = 1"1/16 (SAE 12) } Special

**Modifiche** \_\_\_\_\_

**Clave de designación**

**Referencia modelo :**

**Serie** \_\_\_\_\_  
**Aro volumetrico** \_\_\_\_\_  
 (Cilindrata) (ml/rev)  
 003 = 8,8  
 004 = 12,8  
 005 = 16,0  
 006 = 20,7  
 008 = 26,1  
 009 = 31,5  
 011 = 35,6  
 012 = 39,7

**Tipo de eje** \_\_\_\_\_  
 1 = chaveteado (no SAE)  
 3 = estriado (special)  
 4 = estriado (SAE A)

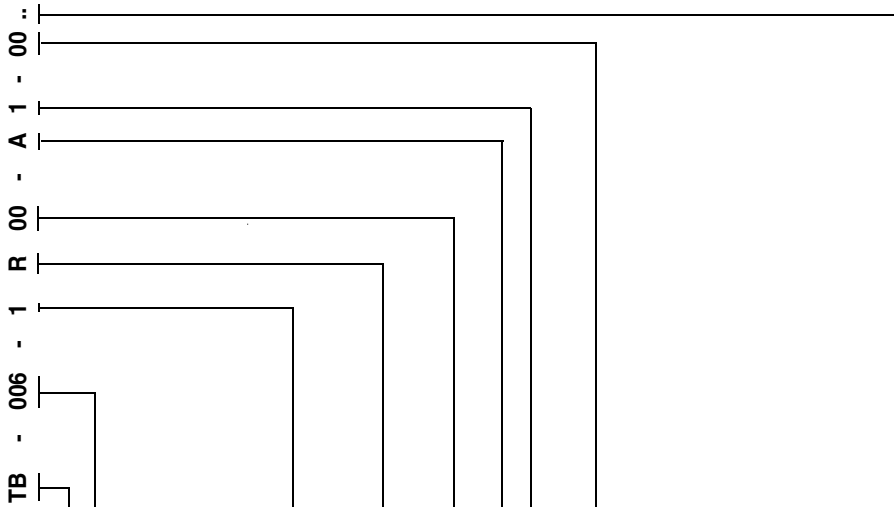
**Sentido de giro** \_\_\_\_\_  
 R = Derecha  
 L = Izquierda

**Posición de bocas** \_\_\_\_\_  
 00 = estándar

**Letra de diseño** \_\_\_\_\_  
**Clase de juntas** \_\_\_\_\_  
 1 = S1 - BUNA N  
 5 = S5 - VITON

**Opciones de las bocas** \_\_\_\_\_  
 00 = S = 1"5/8 (SAE 20)  
 P = 1"1/16 (SAE 12)  
 01 = S = 1"1/4 } SAE J518c (61)  
 P = 3/4" } ISO 6162 (1) } Standard  
 03 = S = 1"1/4 (NPTF)  
 P = 1"1/16 (SAE 12)  
 Metric thread  
 M1 = S = 1"1/4 SAE J518c (61)  
 P = 3/4" ISO 6162 (1)  
 OX = S = 1"1/4" (NPTF)  
 P = 3/4" (NPTF)  
 OW = S = 1"1/4 (SAE J518 c)  
 P = 1"1/16 (SAE 12) } Special

**Modificaciones** \_\_\_\_\_





**WARNING — USER RESPONSIBILITY**

**FAILURE OR IMPROPER SELECTION OR IMPROPER USE OF THE PRODUCTS DESCRIBED HEREIN OR RELATED ITEMS CAN CAUSE DEATH, PERSONAL INJURY AND PROPERTY DAMAGE.**

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