

Main stage spool type	Used on valve type	Spool
0	♣	02-317225
1/11	◇	02-317226 *
2	♣	02-317237
3/31	◇	02-317227 *
4	◇	02-317231
6	♣	02-317238
7	♣	02-317228
8	◇	02-317233
9	♣	02-317250
33	♣	02-317234
52/521	♣	02-317235 *

*** Note**

Assemble type 1 & 3 spools with narrow center land toward "A" end of valve. "A" end is defined as being closest to CYL. port "A".
 Assemble type 11 & 31 spools with narrow center land toward CYL. port "B".
 Assemble type 52 spool with narrow land toward CYL. port "B".
 Assemble type 521 spool with narrow land toward CYL. port "A".

◇ Spool types 1,3, 4,8,11, & 31 are not available on "A" offset valve models.
 ♣ Spool types 31,52, & 521 are not available on "D" pressure centered model valves.

Note
 SAE straight thread plugs used on exterior of valve.

Note
 Parts included in service kits are not sold separately.

- ♣ 02-321196 "O" Ring
- ☆ 298171 Bolt (4 Req'd)
Torque 205-230 N.m. (150-170 lb. ft.)
Refer to caution plate before removal.
- ☆ 02-317242 Cover

☆ Arrangement for "A" spring offset & check valve option models.

- ♣ 02-317247 Washer (Omit on "Blank" no spring models)
- ♣ 02-317246 Spring (Omit on "Blank" no spring models)
- ♣ 02-321196 "O" Ring
- ☆ 298171 Bolt (4 Req'd)
Torque 205-230 N.m. (150-170 lb. ft.)
- ♣ 02-317242 Cover

♣ Arrangement for "Blank" (no springs), "C" (spring centered), & check valve option models.

- ⊞ 689289 "O" Ring
- ⊞ 298175 Bolt (4 Req'd)
Torque 205-230 N.m. (150-170 lb. ft.)
- † 407533 Plug
- ⊞ 396093 "O" Ring

⊞ Arrangement for "D" pressure centered valve models.

- ⊞ 02-317252 Cover
- ⊞ 02-321196 "O" Ring
- ⊞ 02-317245 Spring
- ⊞ 288760 Sleeve
- ⊞ 288759 Piston

Note

All internal seals of the mainstage are F3. Mounting face seals are standard (Buna-N). F6 seal are special (Nitrile) and are used throughout the valve assembly.
 Ⓜ Viton is a registered trademark of E.I. DuPont

Seal Kits

Location	Kit Number
Mainstage	02-329897
Mainstage F3	02-329898
Mainstage F6	02-329899
With 'P' Port Check	02-330350
With 'P' Port Check F3	02-330351
With 'P' Port Check F6	02-330352
Pressure Centered	02-330353
Pressure Centered F3	02-330354
Pressure Centered F6	02-330355

♣ Spool (See table)

- ✱ Part of Seal Kit 02-330350
- ⊞ Part of Seal Kit 02-330353
- ♣ Part of Seal Kit 02-329897
- † Plug torques oiled (See table).
- ♣ Used on "C" (spring centered) / "Blank" (no spring) valves.
- ⊞ Used on "A" (spring offset) valves.
- ☆ Used on K/Q/R/S check valves.
- ⊞ Used on "D" pressure centered valve.

♣ 267966 Screw (4 Req'd)

♣ 412520 Nameplate
 ♣ 323656 Cover Plate

Plug torques (oiled)

Plug	N.m	lb. in.
7074	8.5-9.6	75-85
30560	8.5-9.6	75-85
113000	5.0-5.9	45-52
161809	5.0-5.9	45-52
343740	15.0-16.0	133-147
363889	20.5-22.5	181-199
407533	12.1-12.4	107-110

† 363889 Plug

♣ 396095 "O" Ring

† 7074 Plug

† 407533 Plug

♣ 396093 "O" Ring

♣ 893186 I.D. plate with circuit diagram

416834 Rivet (4 Req'd)

♣ 02-309664 Body

♣ 02-309665 Body

⊞ 02-309668 Body

♣ 396093 "O" Ring

† 407533 Plug

♣ 396093 "O" Ring

† 407533 Plug

† 30560 Plug ("X" omitted from model code)

♣ 118202 "O" Ring (X port)

† 113000 Plug

♣ 396093 "O" Ring

† 407533 Plug

† 407533 Plug

♣ 245802 Sleeve

♣ 407533 Plug

♣ 407533 Plug

♣ 245802 Sleeve

♣ 245802 Sleeve

♣ 245802 Sleeve

♣ 245802 Sleeve

♣ 245802 Sleeve

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Spring Options

Part No.	Description
247287	K-0.3 bar (5 psi) spring
247288	Q-2.4 bar (35 psi) spring
276428	R-3.4 bar (50 psi) spring
432353	S-5.2 bar (75 psi) spring

♣ Cover attaching bolts (4 Req'd)

Model code option	Bolt
"Blank"	1031
"2" or "3"	10936
"R"	10937
"2", "3" and "R"	238715

Torque 100-112 lb.in. (11.3-12.7 N.m.)

♣ 262342 "O" Ring (2 Req'd)

♣ DGMFN-5-Y-A1W-B1W-30 (Pilot choke option with 2 or 3 in model code)

† 407533 Plug

♣ 396093 "O" Ring

† 407533 Plug (2 Req'd)

♣ 396093 "O" Ring (2 Req'd)

♣ 396093 "O" Ring (3 Req'd)

† 407533 Plug (3 Req'd)

† 7074 Plug

♣ 396095 "O" Ring

† 363889 Plug

195450 Rest pin (2 Req'd)

♣ 118202 "O" Ring (Y port)

♣ 396093 "O" Ring

♣ 396094 "O" Ring (2 Req'd)

† 343740 Plug (2 Req'd)

♣ Spring (See table)

♣ 6422 Poppet

♣ 02-309667 Seat

✱ 200145 "O" Ring (4 Req'd A,B,P, & T ports).

♣ 3 Req'd A,B, & T ports

♣ 200149 "O" Ring (P port)

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♣ 200149 "O" Ring (P port)

♣ 200149 "O" Ring (P port)

- ☆ 298171 Bolt (4 Req'd)
Torque 205-230 N.m. (150-170 lb. ft.)
Refer to caution plate before removal.
- ☆ 416834 Rivet (4 Req'd)
- ☆ 408491 Caution plate
- ☆ 02-317253 Cover
- ♣ 02-321196 "O" Ring
- ☆ 408322 Inner spring
- ☆ 110541 Outer spring

☆ Arrangement for "A" spring offset & check valve option models.

Note:
 For "A" spring offset models only. Right hand assembly shown. For left hand assembly, end covers, springs, and spool are reversed.

- ♣ 298171 Bolt (4 Req'd)
Torque 205-230 N.m. (150-170 lb. ft.)
- ♣ 02-317242 Cover
- ♣ 02-321196 "O" Ring
- ♣ 02-317246 Spring (Omit on "Blank" no spring models)
- ♣ 02-317247 Washer (Omit on "Blank" no spring models)

♣ Arrangement for "Blank" (no springs), "C" (spring centered), & check valve option models.

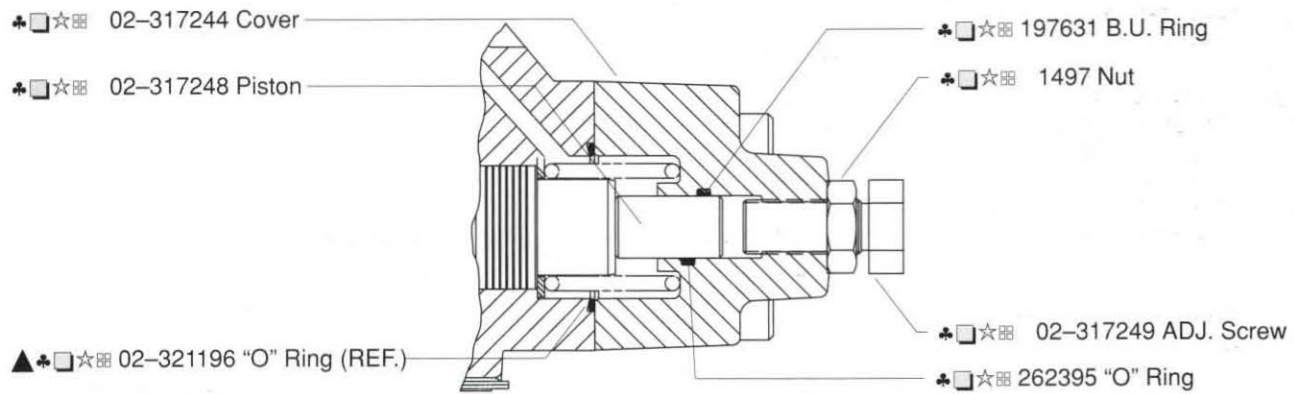
- ⊞ 298171 Bolt (4 Req'd)
Torque 205-230 N.m. (150-170 lb. ft.)
- ⊞ 02-317242 Cover
- ⊞ 02-321196 "O" Ring
- ⊞ 02-317245 Spring
- ⊞ 02-317247 Washer

⊞ Arrangement for "D" pressure centered valve models.

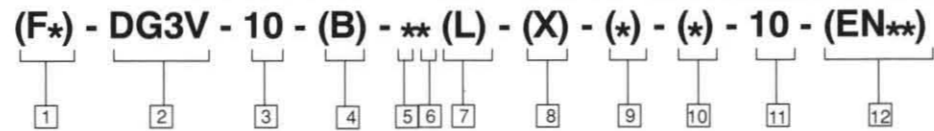
Spool Orientation Table

P/N 02-317225 Type "0"		P/N 02-317234 Type "33"	
P/N 02-317226 Type "1"		P/N 02-317235 Type "52"	
P/N 02-317237 Type "2"		P/N 02-317231 Type "521"	
P/N 02-317227 Type "3"		P/N 02-321158 Type "56"	
P/N 02-317231 Type "4"		P/N 02-321158 Type "561"	
P/N 02-317238 Type "6"		P/N 02-317257 Type "0A"	
P/N 02-317228 Type "7"		P/N 02-317258 Type "2A"	
P/N 02-317233 Type "8"		P/N 02-317259 Type "6A"	
P/N 02-317250 Type "9"		P/N 02-317260 Type "9A"	
P/N 02-317226 Type "11"		P/N 02-317261 Type "33A"	
P/N 02-317227 Type "31"			

Stroke Adjustment Option



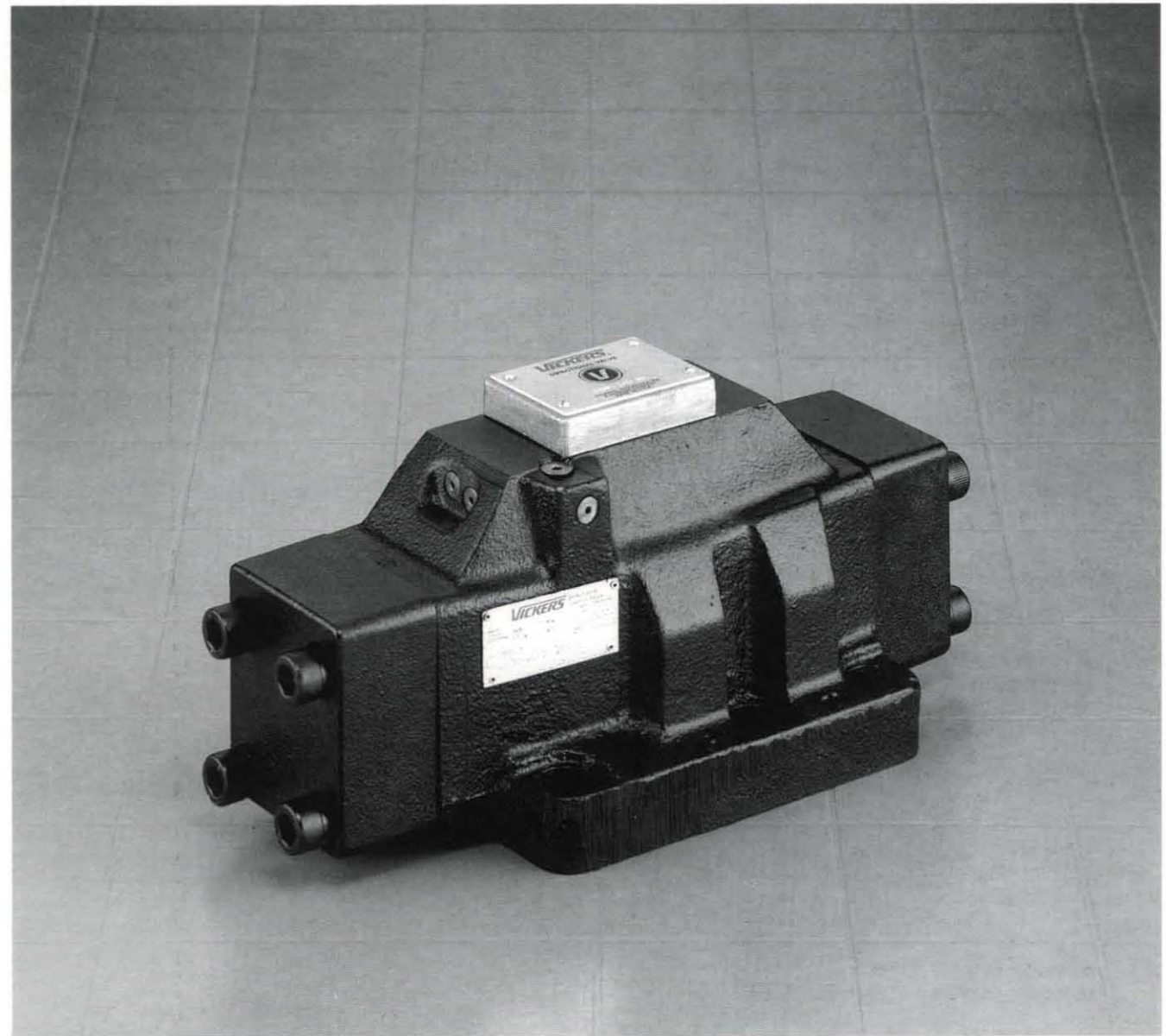
Model Code



- 1 Special Seals**
(Omit if not required)
F3 - Seals for fire resistant fluids
F6 - Seals for water glycol
- 2 Directional Control Valve**
DG3V - Subplate mounting; pilot operated, remote operator. Pressure rating 210 bar (3000 psi) for P, A & B ports.
- 3 Valve Size**
10 - Valve size CETOP 10, NFPA D10
- 4 Gauge Ports**
Blank - .4375-20 UNF-2B Thread
B - 1/4 BSP Thread
- 5 Spool Types**
 - 0 - Open to T all ports
 - 1 - Open P&A to T, closed B
 - 2 - Closed to T all ports
 - 3 - Closed P&B, open A to T
 - 4 - Tandem P to T, closed crossover
 - 6 - Closed P only, open A&B to T
 - 7 - Open P to A&B, closed T
 - 8 - Tandem P to T, open crossover
 - 9 - Open to T all ports over tapers
 - 11 - Open P&B to T, closed A
 - 31 - Closed P&A, open B to T
 - 33 - Closed P, open A&B to T over tapers
 - 52 - Closed center, regen. by sol. 'A'
 - 521 - Closed center, regen. by sol. 'B'
- 6 Spool/Spring Arrangement**
Blank - No spring
A - Spring offset to cylinder 'A'
C - Spring centered
D - Pressure centered 140-210 bar (2000 - 3000 psi)
- 7 Left Hand Build**
L - 'A' Models only, omit if not required.
- 8 Fast Response**
X - Not available with CETOP 3 pilots or pressure centered 'D' and 'DB' models.
- 9 Spool Control Modifications**
(Omit if not required)
 - 1 - Stroke adjustment (both ends) available on C & Blank (no spring) models
 - 2 - Pilot choke adjustment (available on all models)
 - 3 - Pilot stroke and stroke adjusters (both ends) (available on C & Blank (no spring) models)
 - 7 - Stroke adjusters on cylinder 'A' end only (available on AL, C & Blank (no spring) models)
 - 8 - Stroke adjusters on cylinder 'B' end only (available on AL, C, & Blank (no spring) models)
 - 27 - If both are required (available on A, C, & Blank (no spring) models)
 - 28 - If both are required (available on AL left hand build, C & Blank (no spring) models)
- 10 Check Valve in Pressure Port**
(Omit if not required)
Not available for 'D' models
K - 0,3 bar (5 psi) check
Q - 2,4 bar (35 psi) check
R - 3,4 bar (50 psi) check
S - 5,2 bar (75 psi) check
- 11 Design Number**
- 12 Special Modifications**
(Omit if not required)

Pilot Operated Directional Valves

(F*) - DG3V - 10 - (B) - ** (L) - (X) - (*) - (*) - 10 - (EN**)



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