

VALVULAS GRESEN®

Programa de
Entrenamiento
Modelo V20



V20 Características.

- Configuraciones
 - Centro Abierto
 - Power Beyond
 - Centro Cerrado
 - Load Sense
 - Compensada por Presion
- Secciones Paralelo, Serie y Tandem
 - 3-Vias (Bloqueado y Flujo Libre)
 - 4-Vias (Bloqueado y Flujo Libre)
 - 4-Vias (flotante)

V20 Características.

- Amplia variedad de:
 - Posicionadores Manuales
 - Accionadores Remotos
 - Opciones de puertos de trabajo
 - Sellos (Buna, Viton)
- Caidas de presión muy bajas en el centro abierto y comunicaciones **(las mas bajas del mercado)**
- Puertos SAE, NPT* & BSP
- Puertos de trabajo SAE 12 disponibles

*Puertos NPT no son recomendables para presiones superiores a 2000 psi.

V20 Especificaciones.

- Flujo nominal 20 gpm (76 lpm)
- Presion Operativa (maxima)
 - Continua ... 3500 psi (242 bar)
 - Tapa de salida... 200 psi (14 bar)
 - Tapa de salida... 500 psi (34.5 bar) continuo
1000 psi (69 bar) intermitente
con sello para trabajo pesado

V20 Especificaciones.

- Temperatura de Operación...
 - 40°F (- 40°C) to + 180°F (+ 82°C) sellos Buna N
 - + 200 °F (+ 93°C) sellos Viton
- Filtración... ISO 18/16/13 (manual)
 - ... ISO 17/15/12 (EPC/Solenoide)
- Numero de secciones de trabajo ... 1 to 12
- Posición de montaje ... Sin restricciones

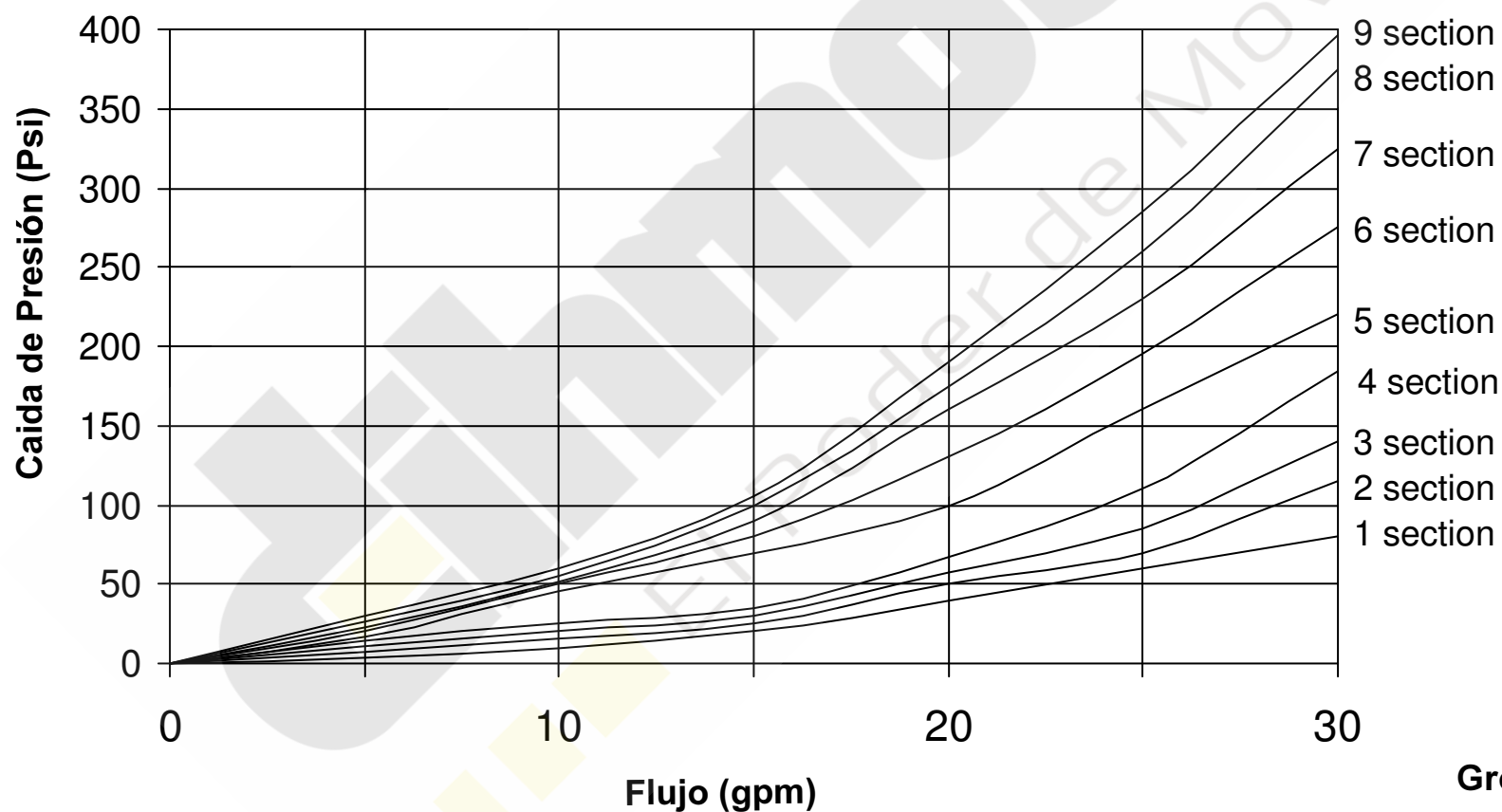
V20 Especificaciones.

- Opciones de Puertos:
 - Entrada... SAE 10,12
 - Salida... SAE 10,12
 - Power Beyond... SAE 10,12,JIC16
 - Pto de Trabajo... SAE 6,8,10,12
- Fulido
 - Base petroleo... 60 -1000 SSU (10 -216 cst)

Caidas de Presion.

Caidas de Presión Centro Abierto para Tandem ó Paralelo.

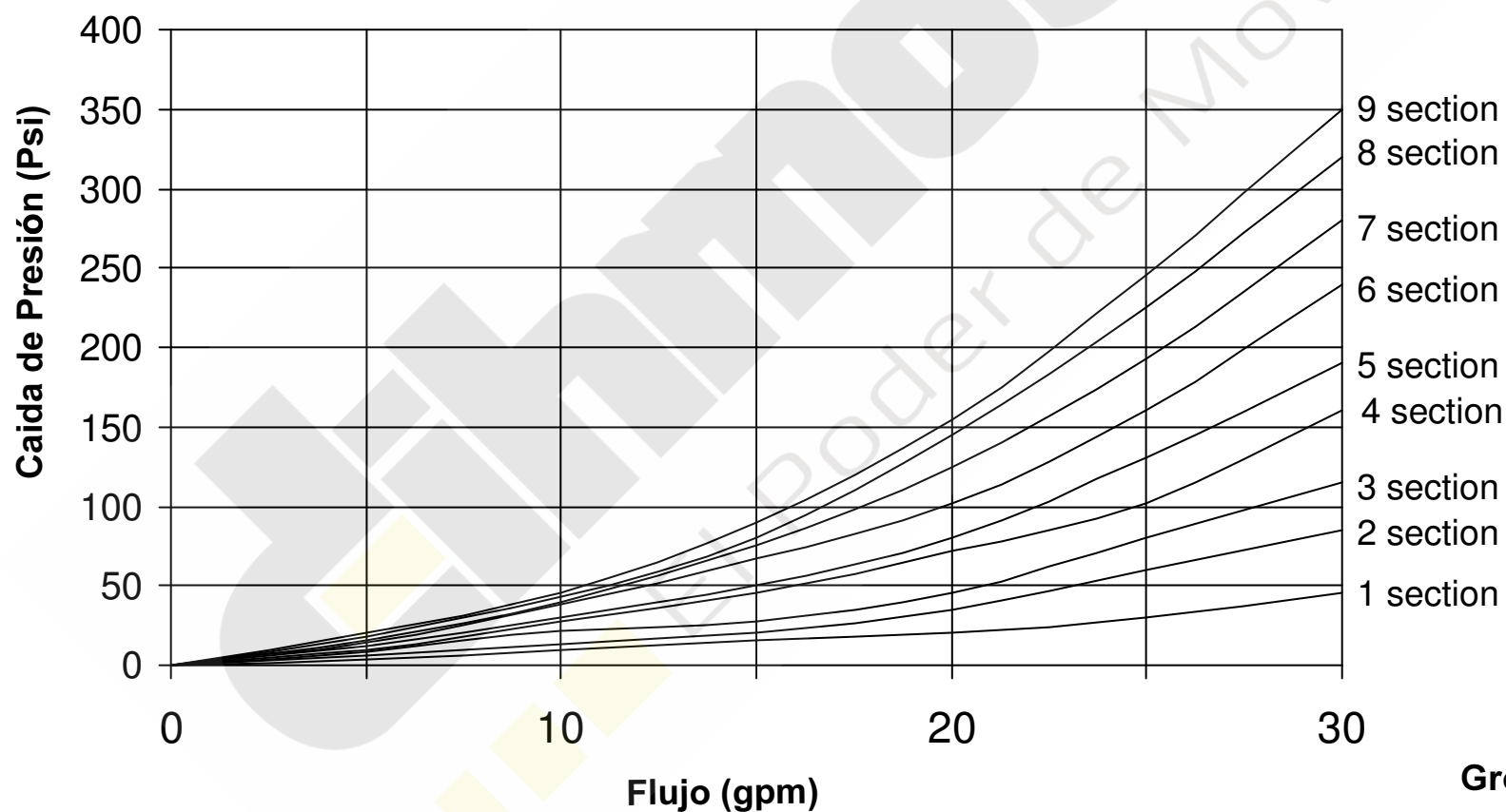
Izquierda a Izquierda.



Group1

Caidas de Presión Centro Abierto para Tandem ó Paralelo.

Izquierda a Derecha

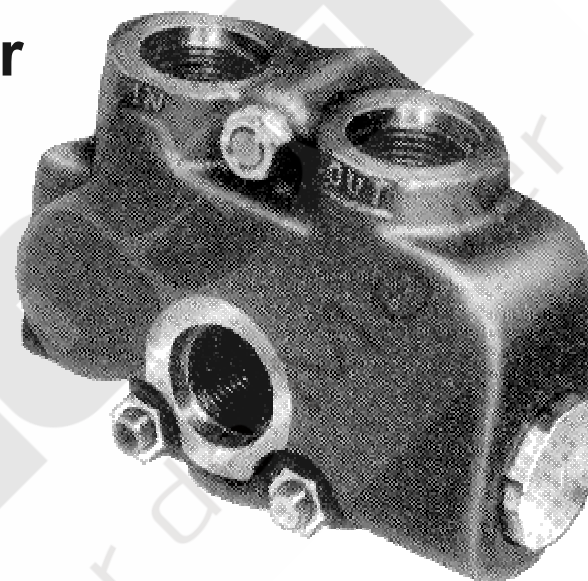


Group1

Opciones de Secciones de Entrada

Entradas.

**Estandar
8398**



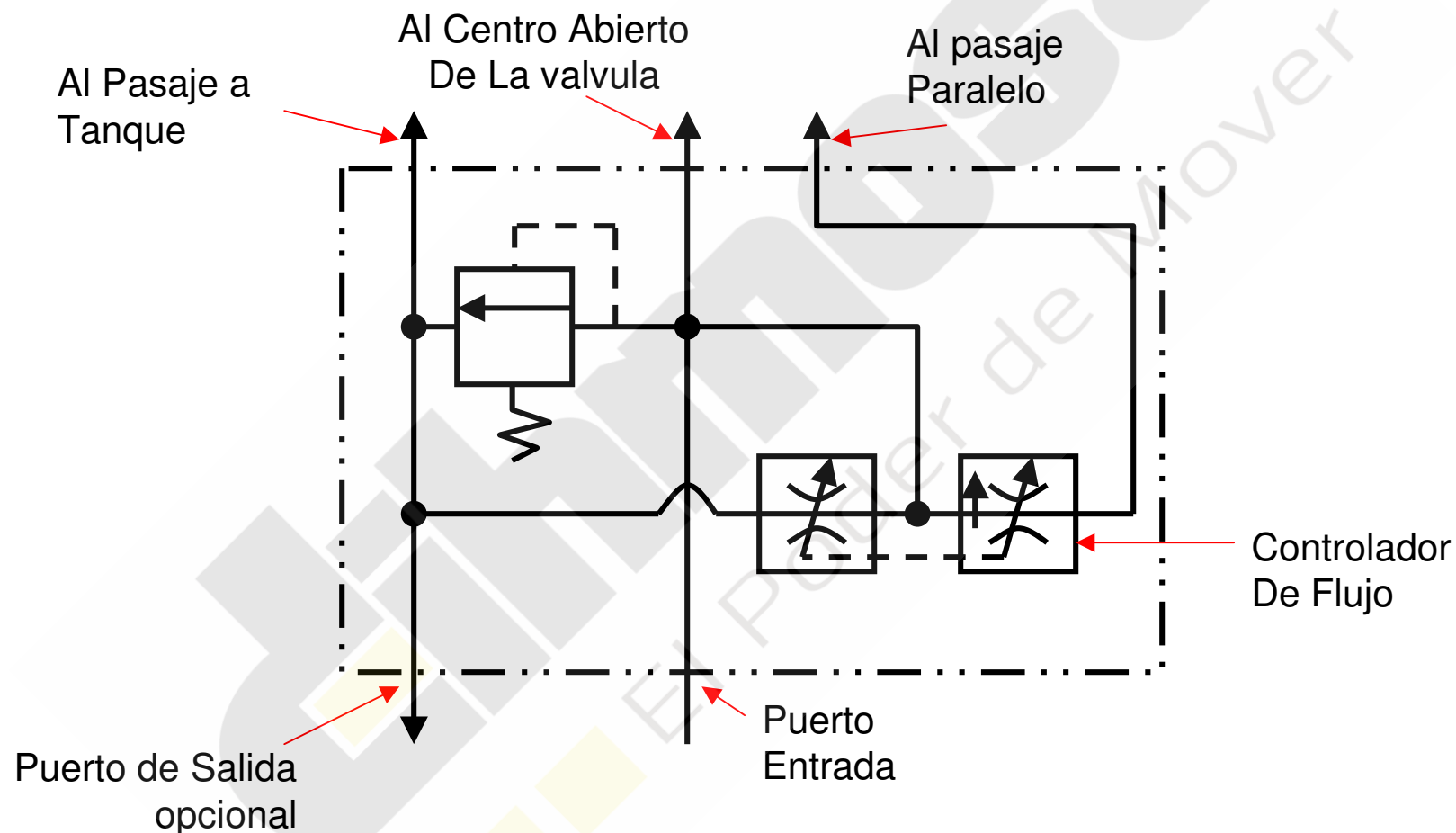
**Control de flujo
7736**



Especificaciones

- Puertos ... SAE 12 Estandar
- Opcional ... SAE 10, 3/4" NPT and 3/4" BSP
- Rango de control de flujo... hasta 25 gpm
- Ambas maquinadas para alojar Valvula de alivio principal

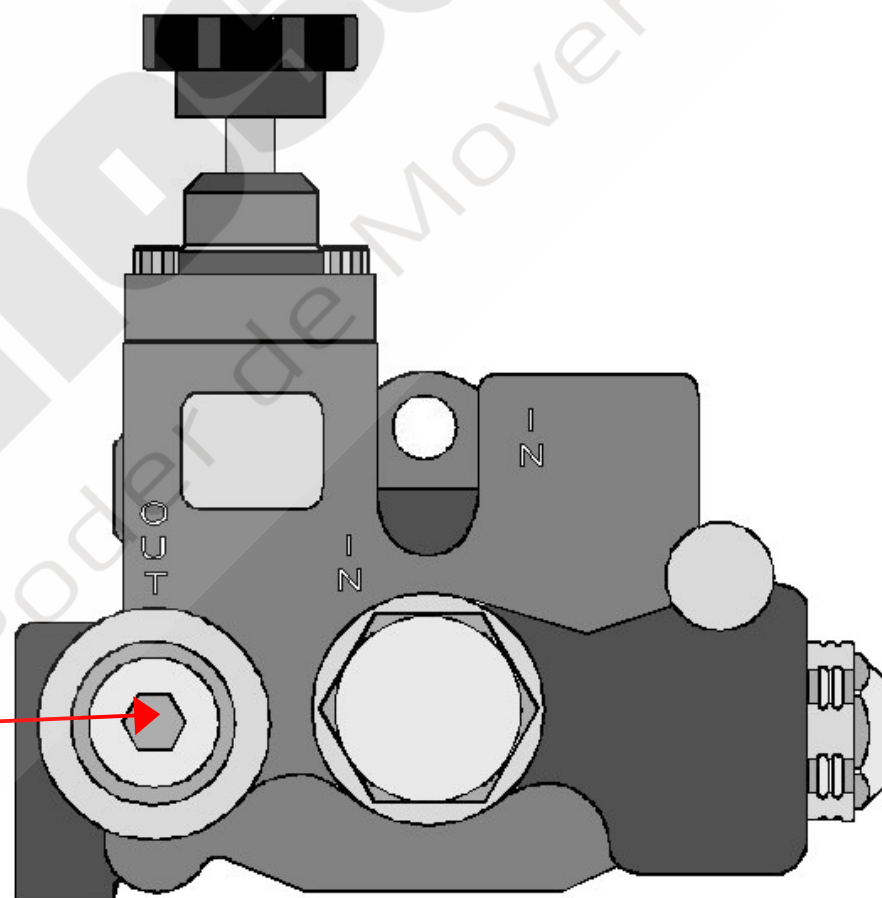
Entrada con Control de Flujo



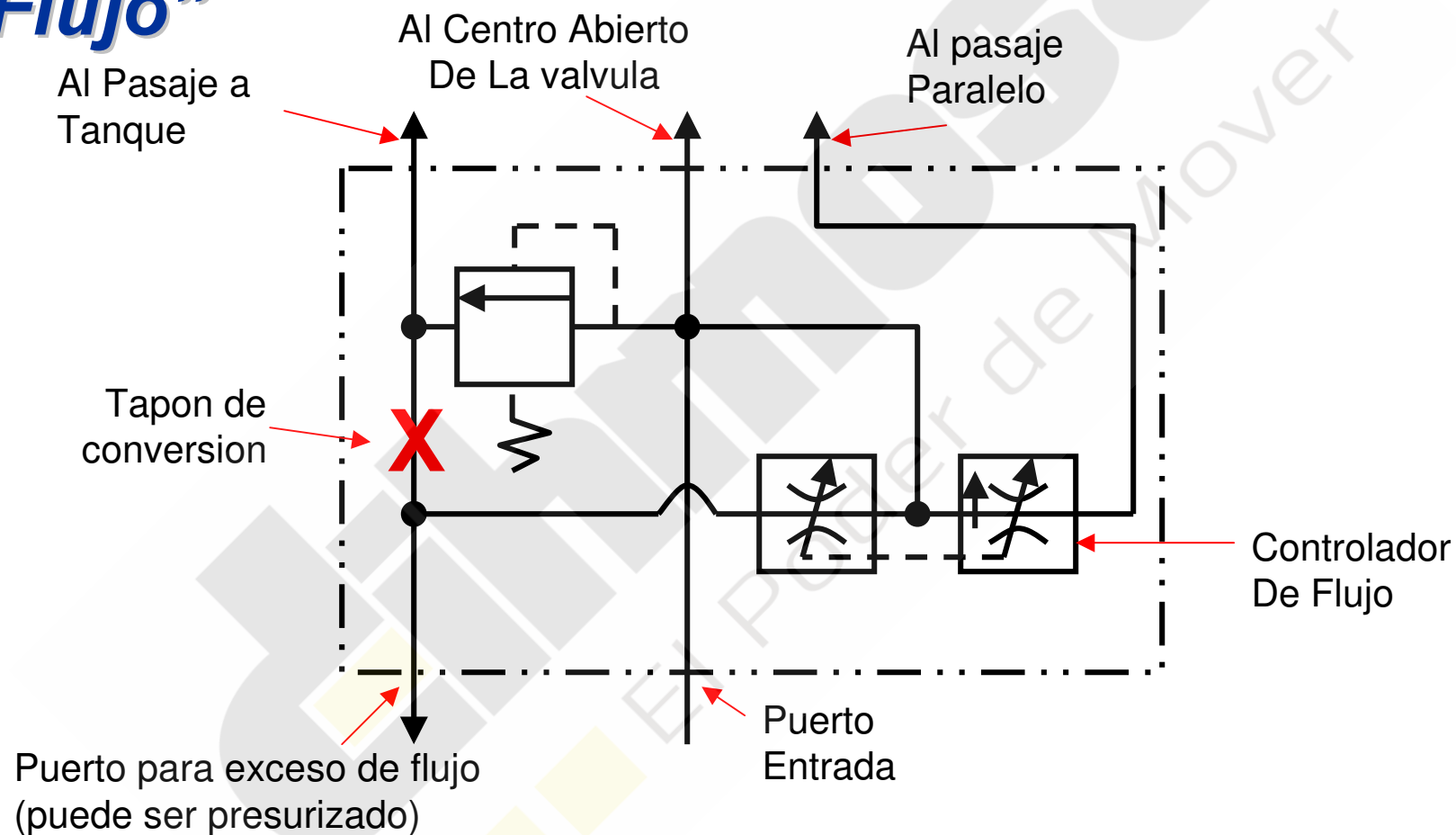
... Control de Flujo con opción “Exceso de Flujo”

- Tapon de conversion debe ser instalado
- El flujo excesivo puede ser presurizado

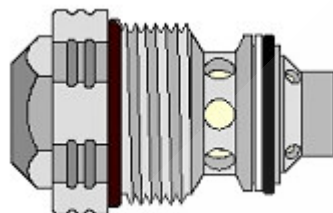
Tapon interno de
conversión



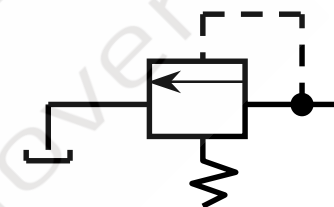
... Control de Flujo con opción “Exceso de Flujo”



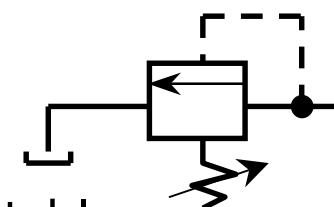
Opciones de Valvulas de Alivio



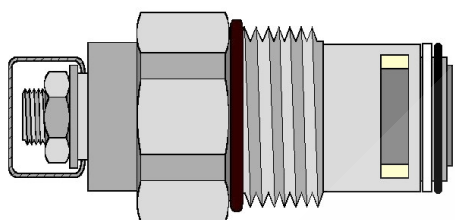
Diferencial de area - Fija
WH - Tamper resistant
WHNJ - Tamper proof



Diferencial de area - Ajustable
WHA

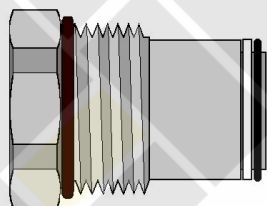


Opciones de Valvulas de Alivio

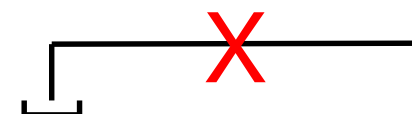
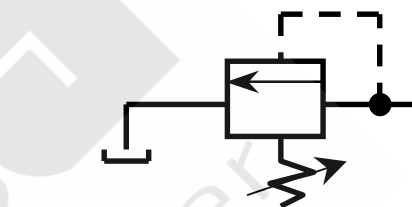


Operada con Piloto - Adjustable
RP51N (muestra Tamper proof cap)

Rango de Ajuste - 200 to 5000 psi (13.8 to 345 bar)



Tapon NR

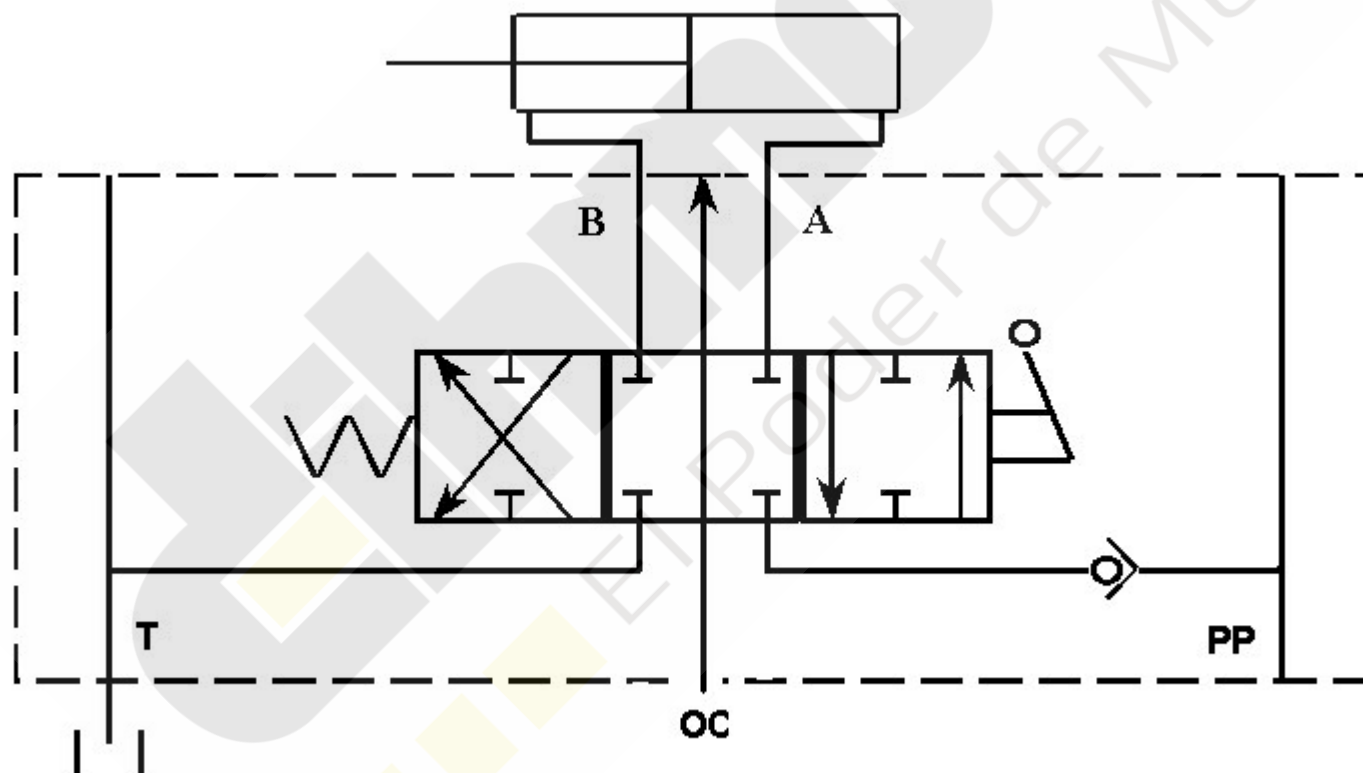


Circuitos Para Centro Abierto

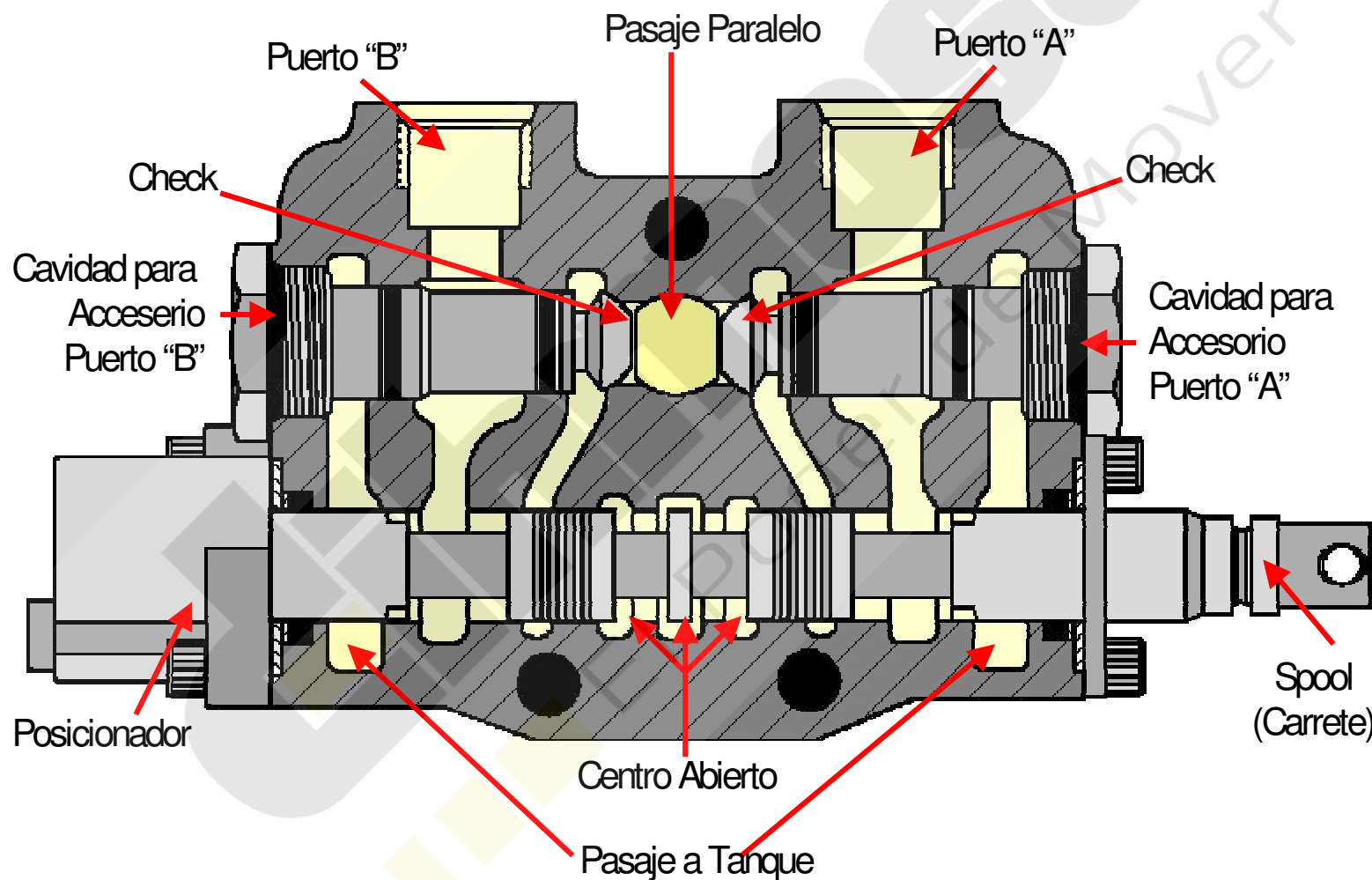
- **Paralelo**
 - Alimenta por el pasaje Paralelo, Descarga por el pasaje a Tanque.
- **Tandem**
 - Alimenta por el centro abierto, Descarga por el pasaje a Tanque.
 - Da prioridad de las secc. de trabajo Presurizadas.
- **Serie**
 - Alimenta por el centro, Descarga por el Centro
 - Las presiones se van sumando a la bomba.

Sección Paralelo, Cilindro Doble Accion

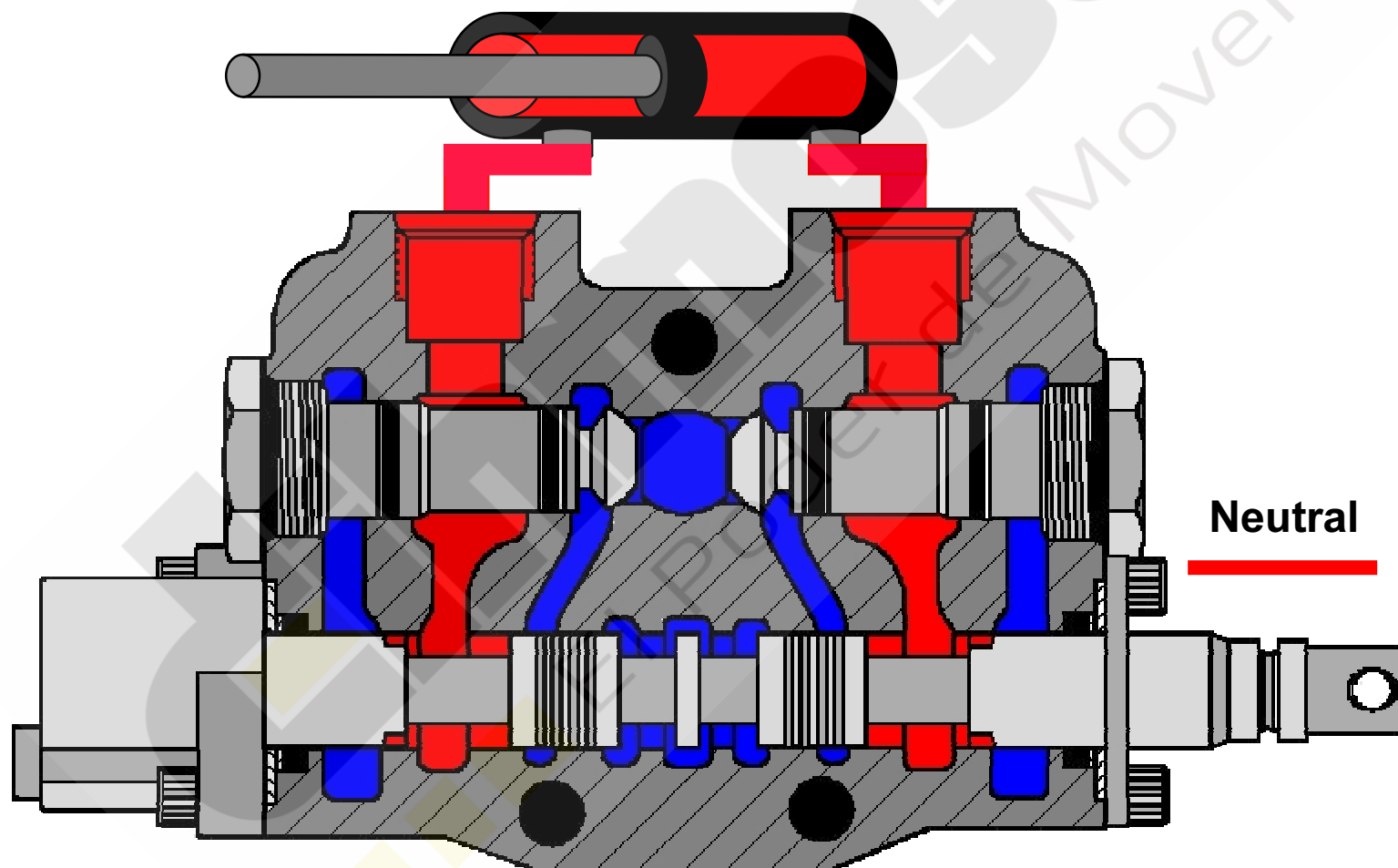
(4 vias, 3 posiciones, Bloqueado en neutral)



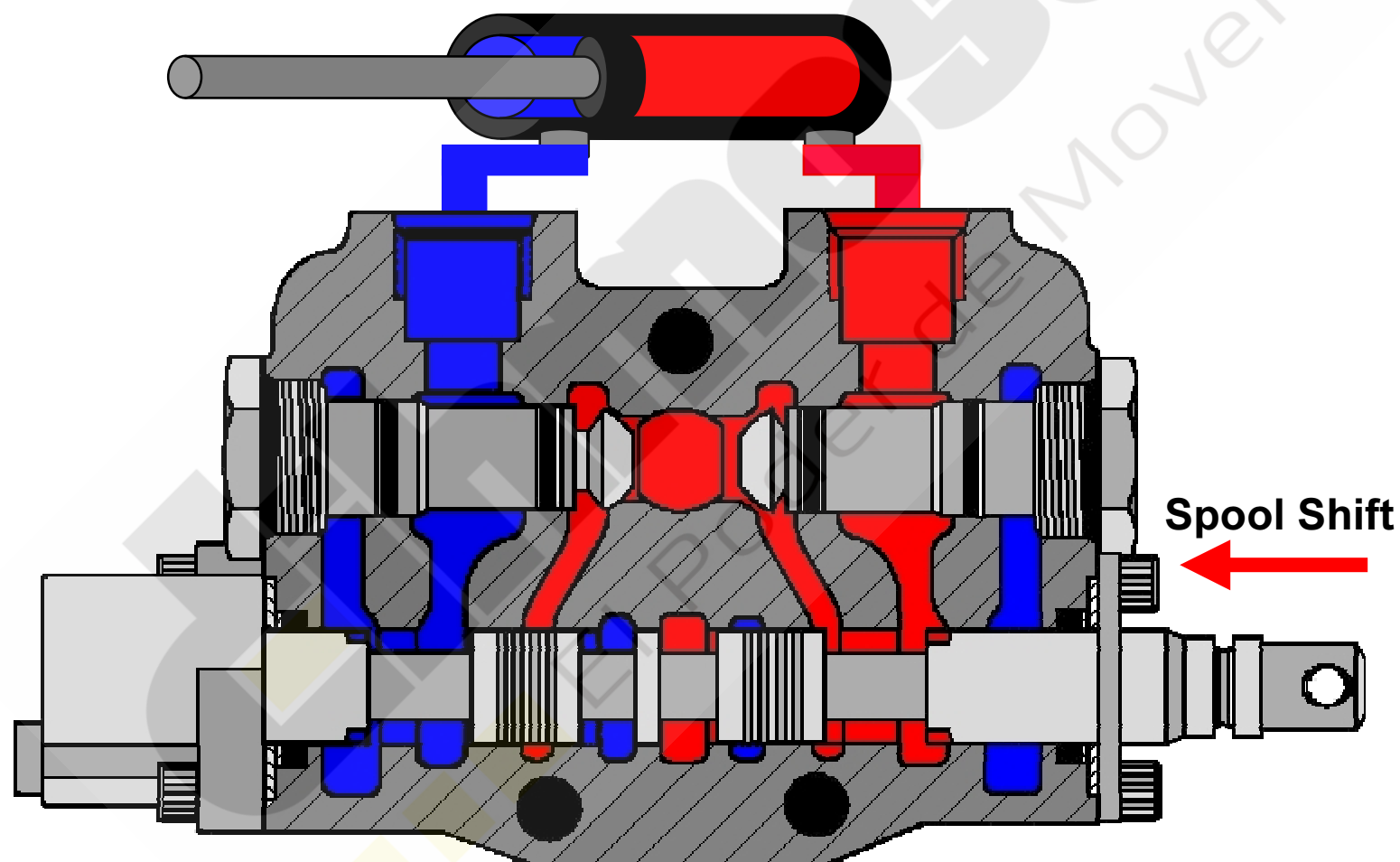
Sección de Trabajo, Paralelo



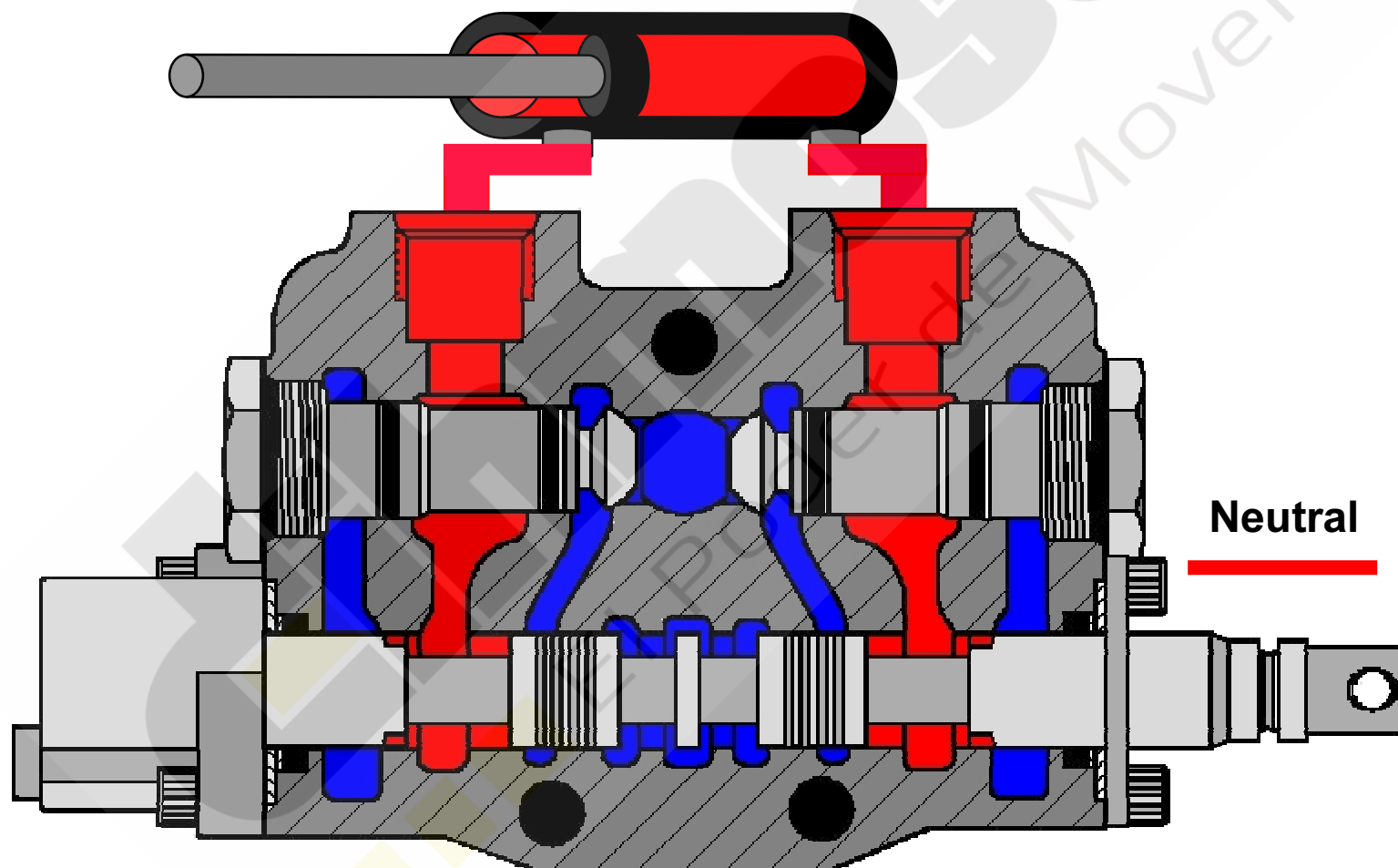
Sección de Trabajo, Paralelo



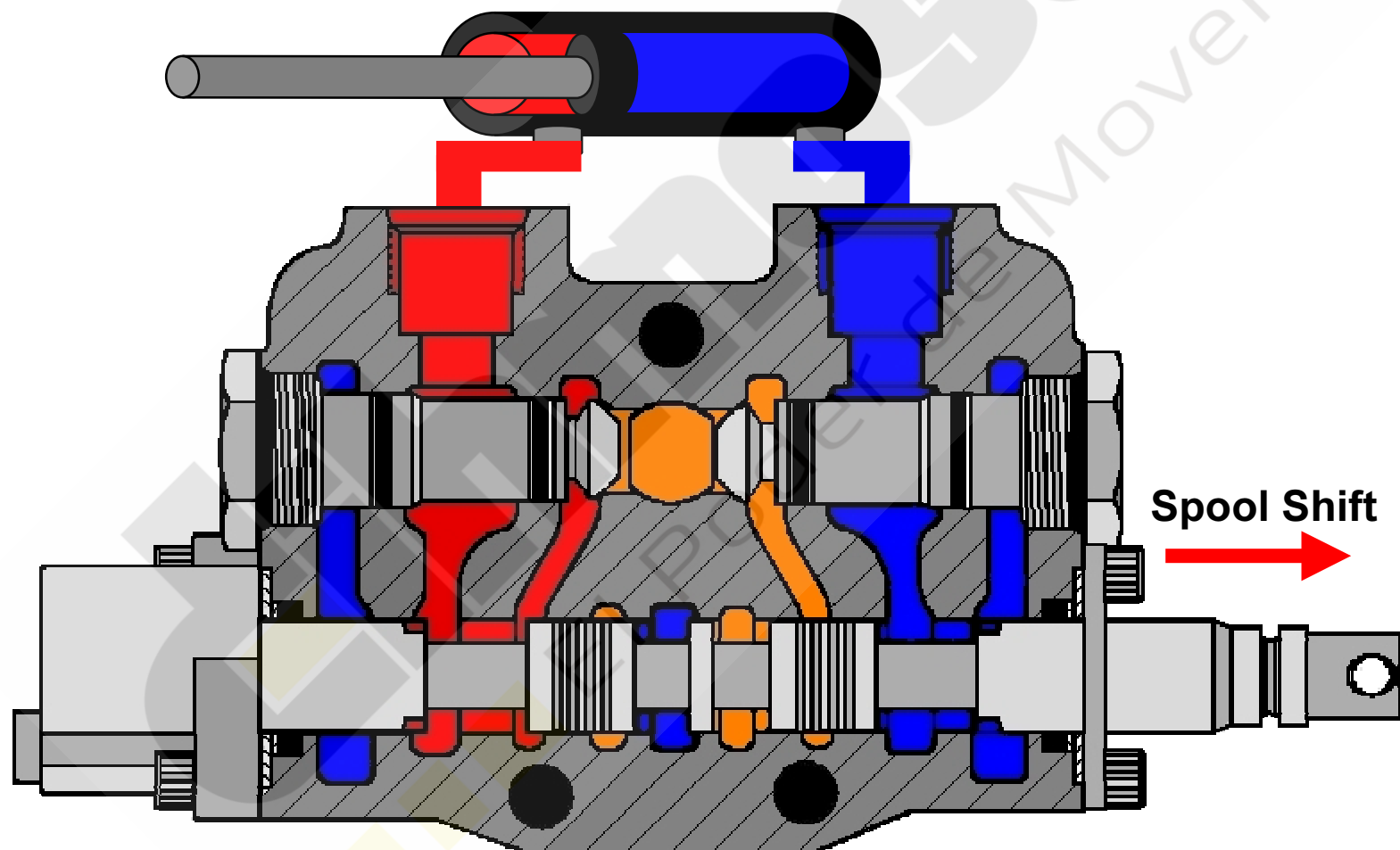
Sección de Trabajo, Paralelo



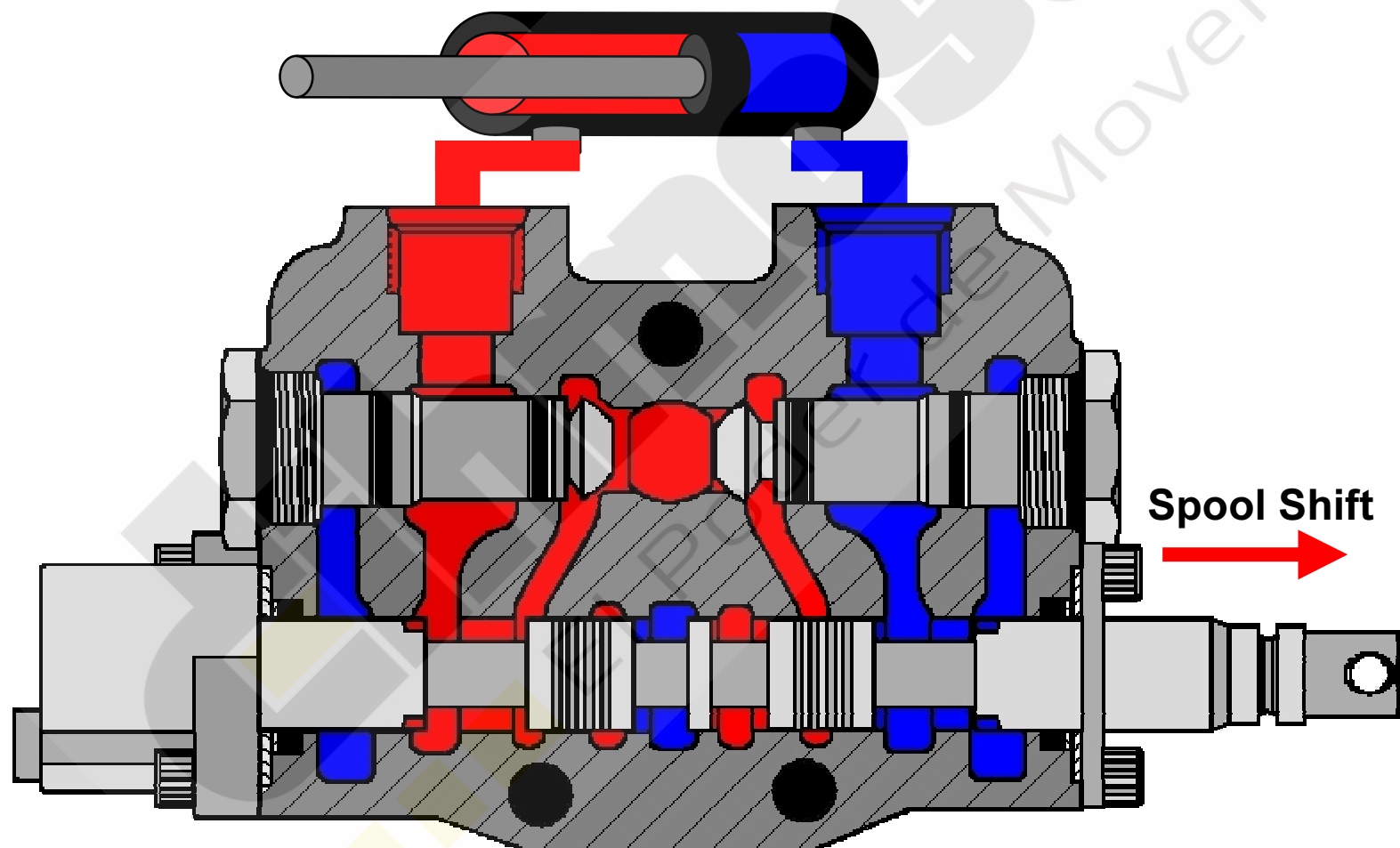
Sección de Trabajo, Paralelo



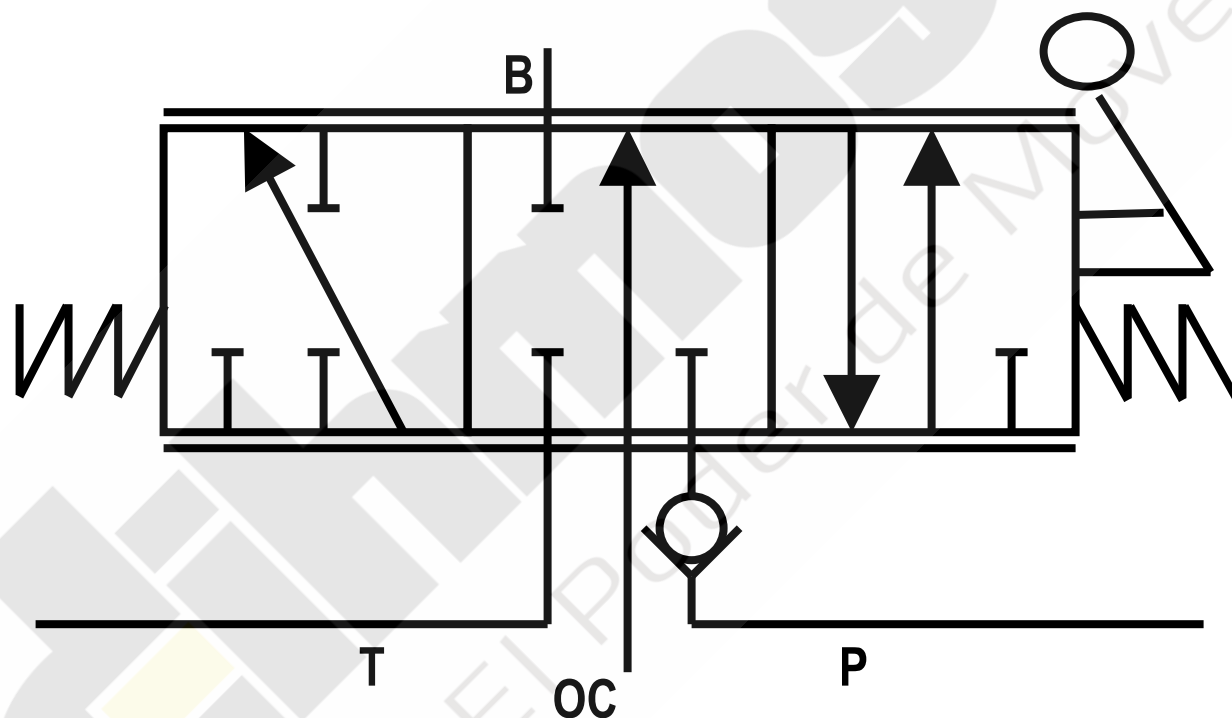
Sección de Trabajo, Paralelo



Sección de Trabajo, Paralelo

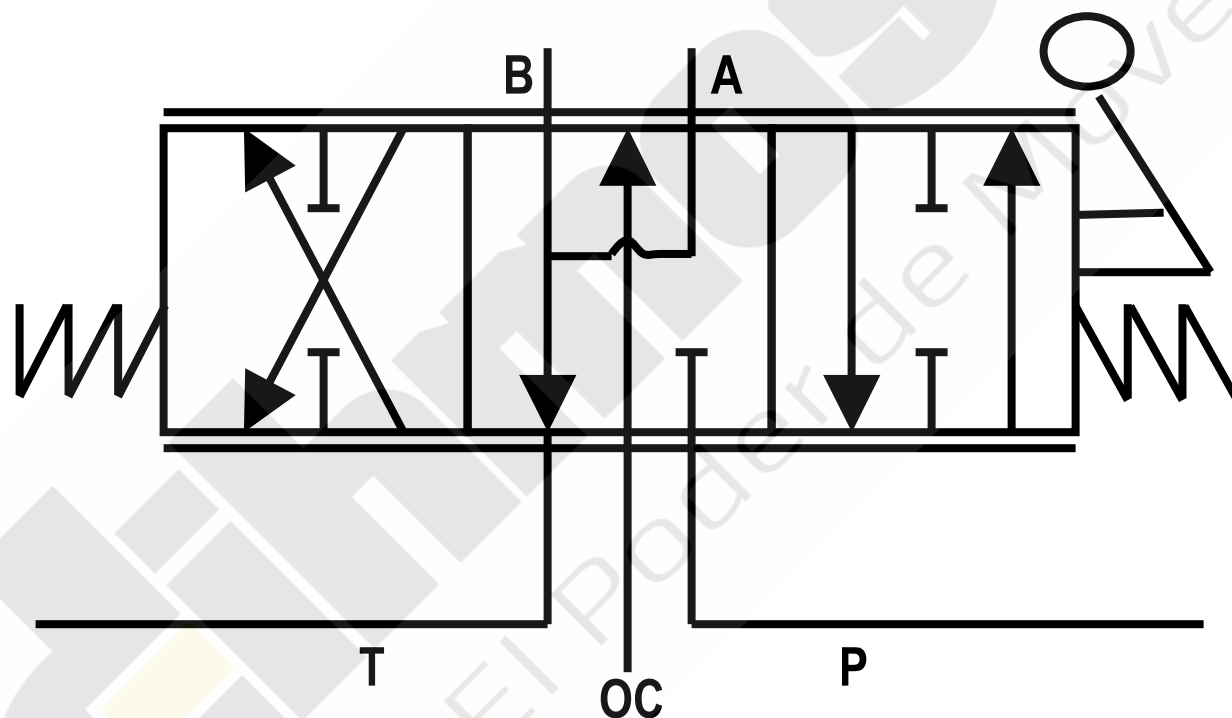


V20 Circuitos de Secc. de Trabajo



3 – Vías, Cilindro Simple Acción

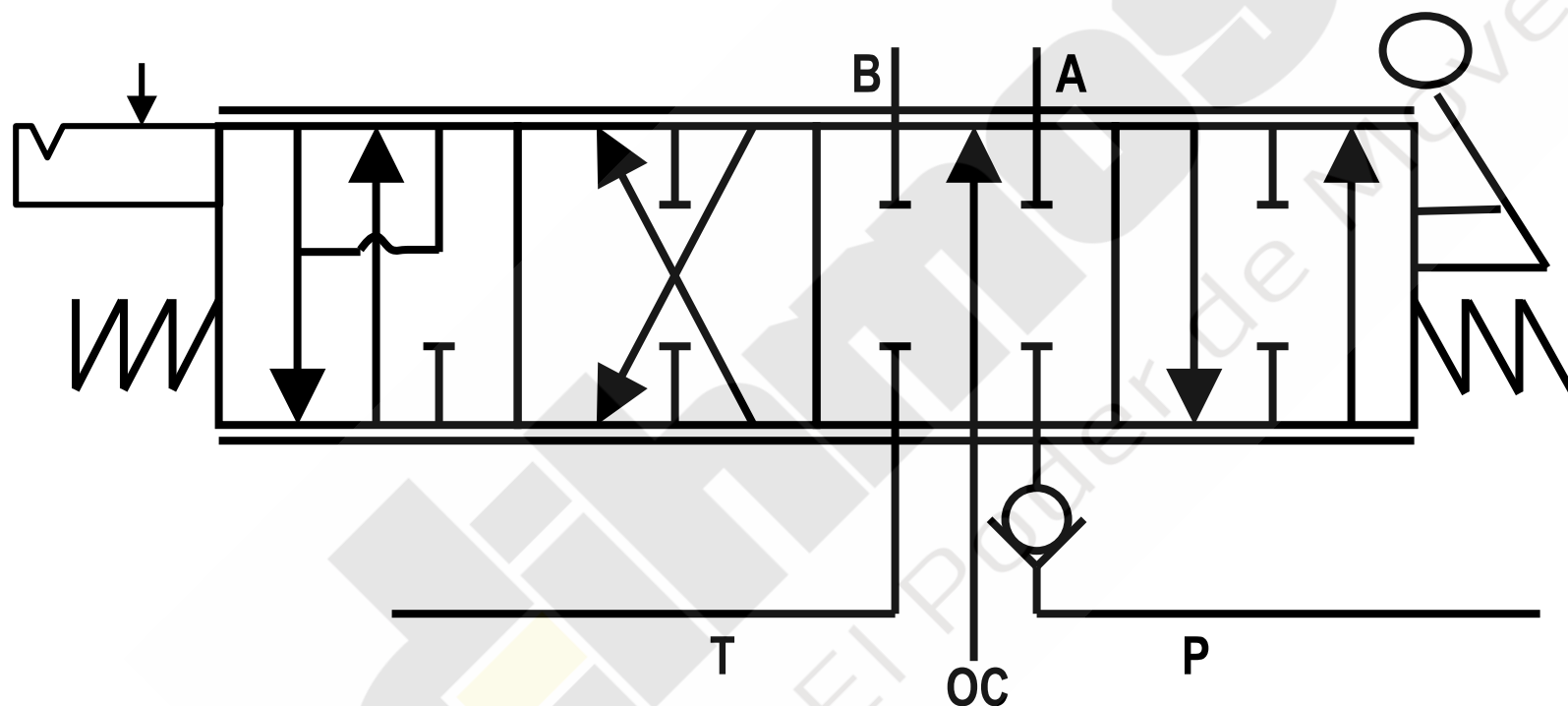
V20 Circuitos de Secc. de Trabajo



4 - Vías Motor / Cilindro

4 – Vias Cilindro

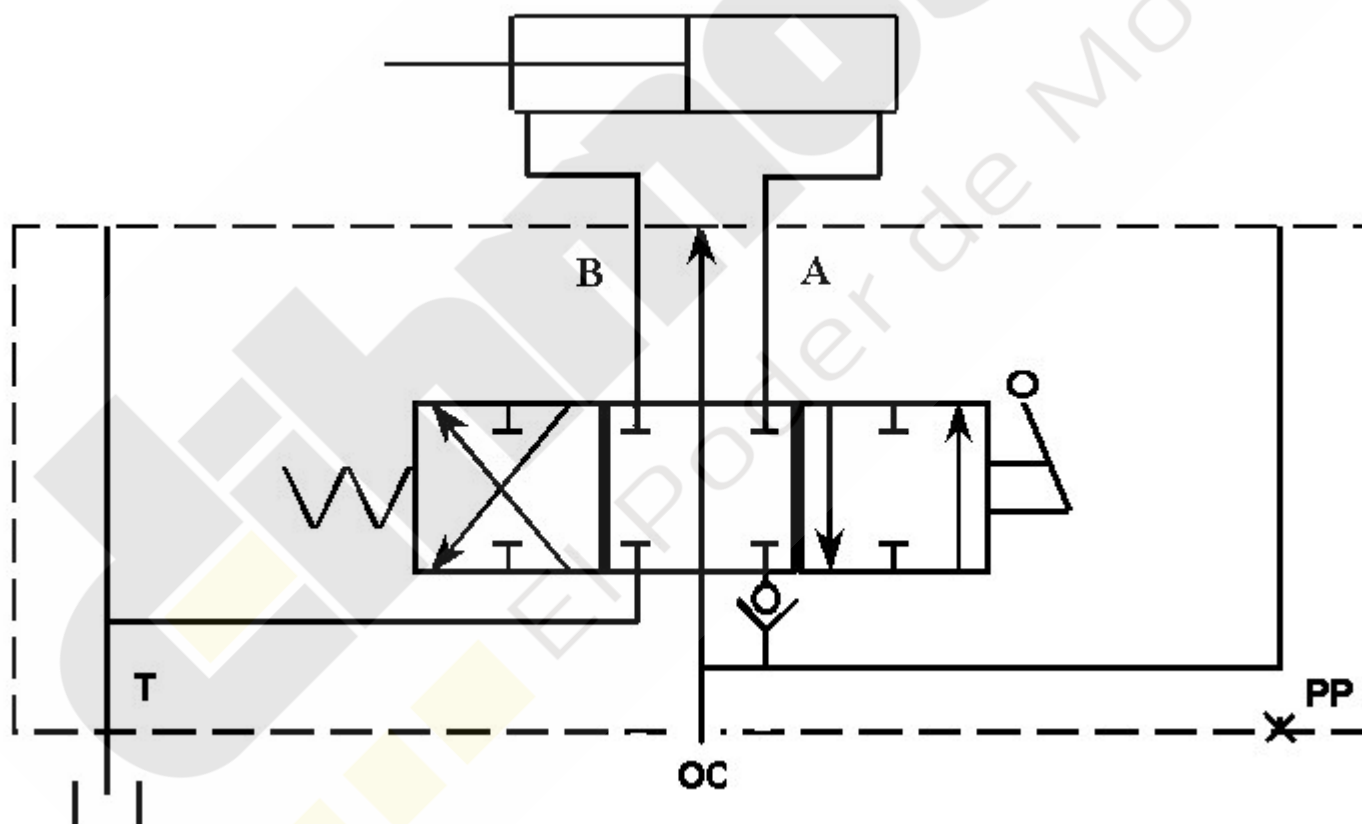
V20 Circuitos de Secc. de Trabajo



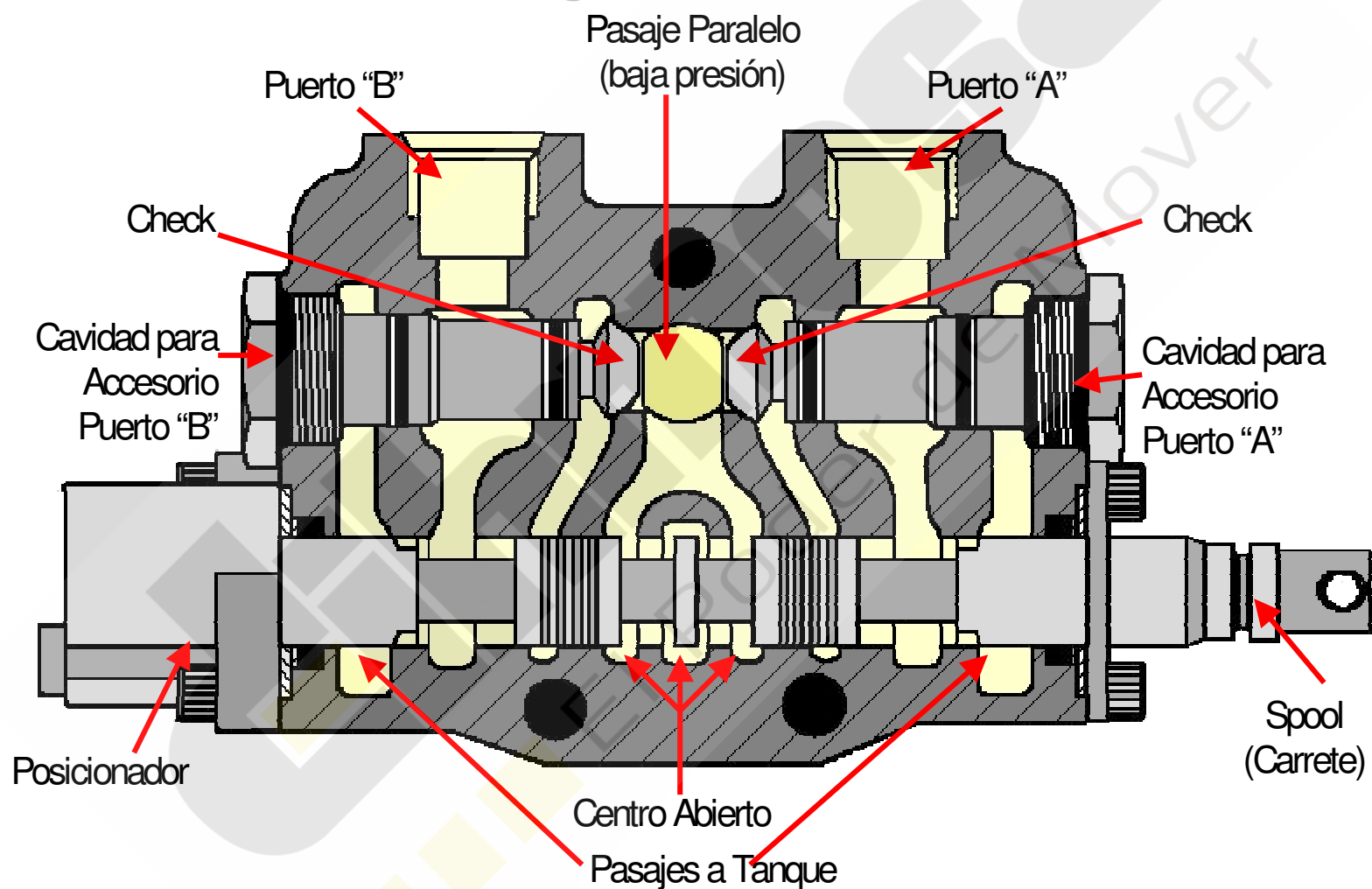
4 - Vías, 4 - Posición Flotante

Seccion Tandem, Cilindro Doble Acción

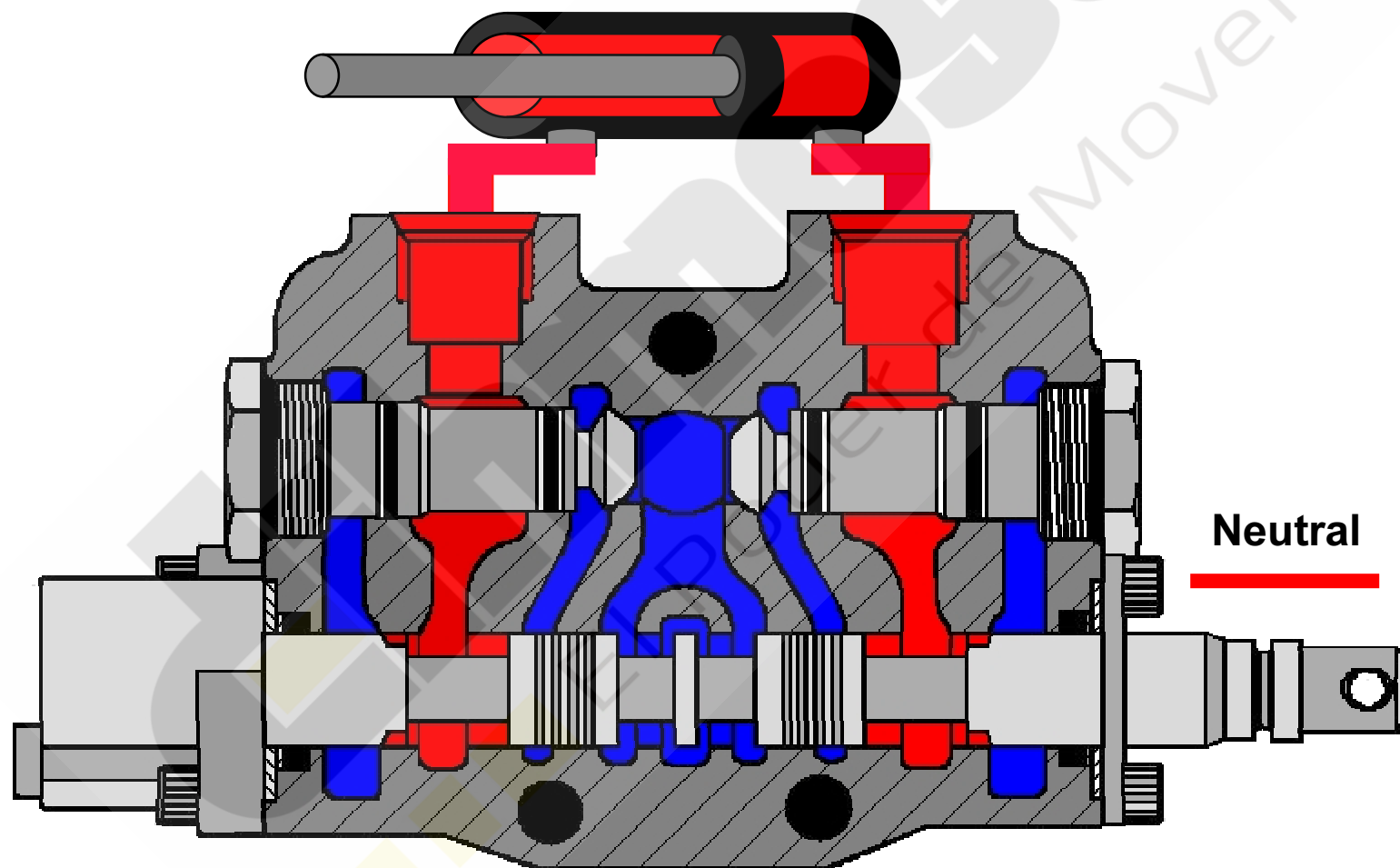
(4 vias-3 pos., bloqueado en neutral)



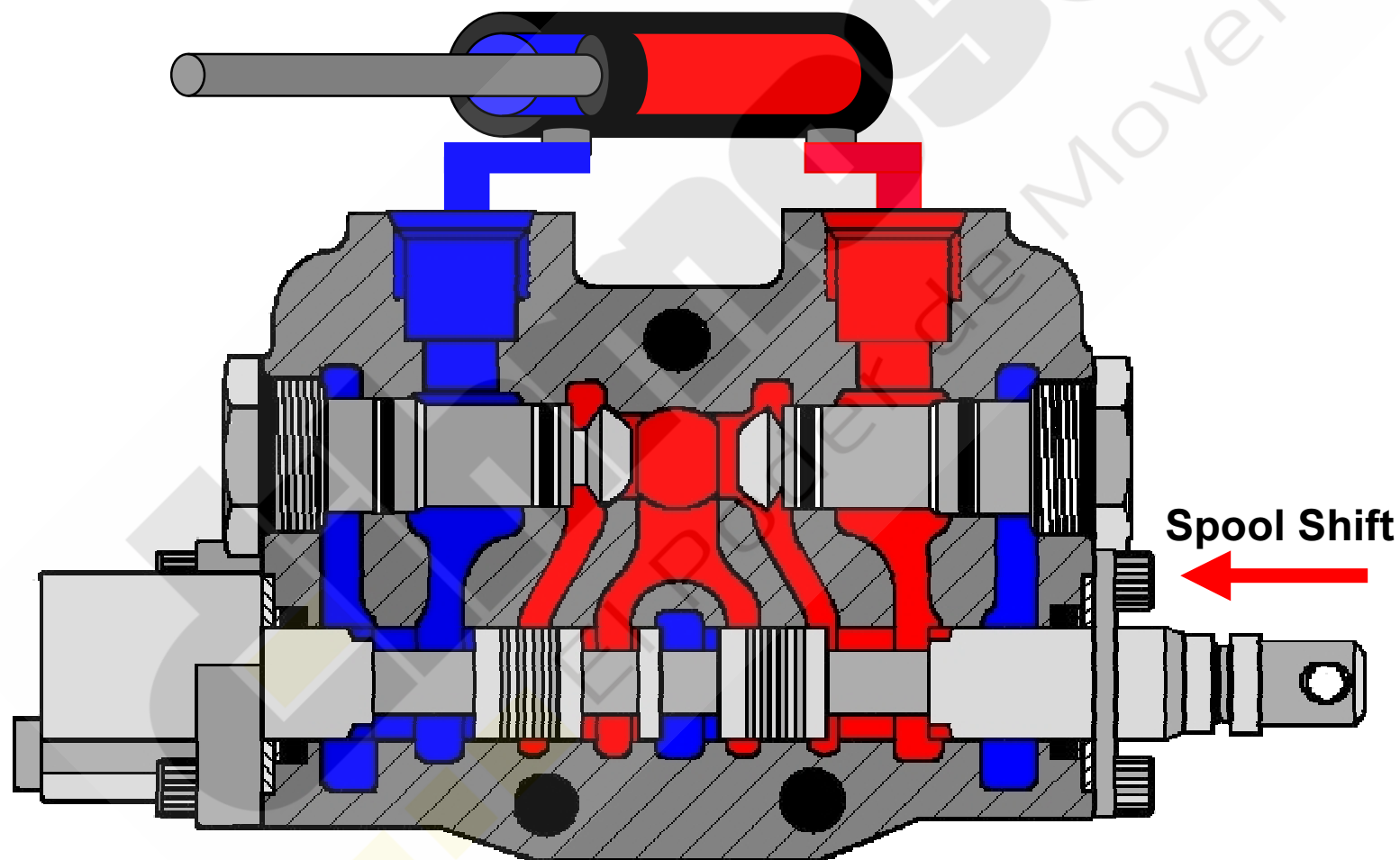
Sección de Trabajo Tandem



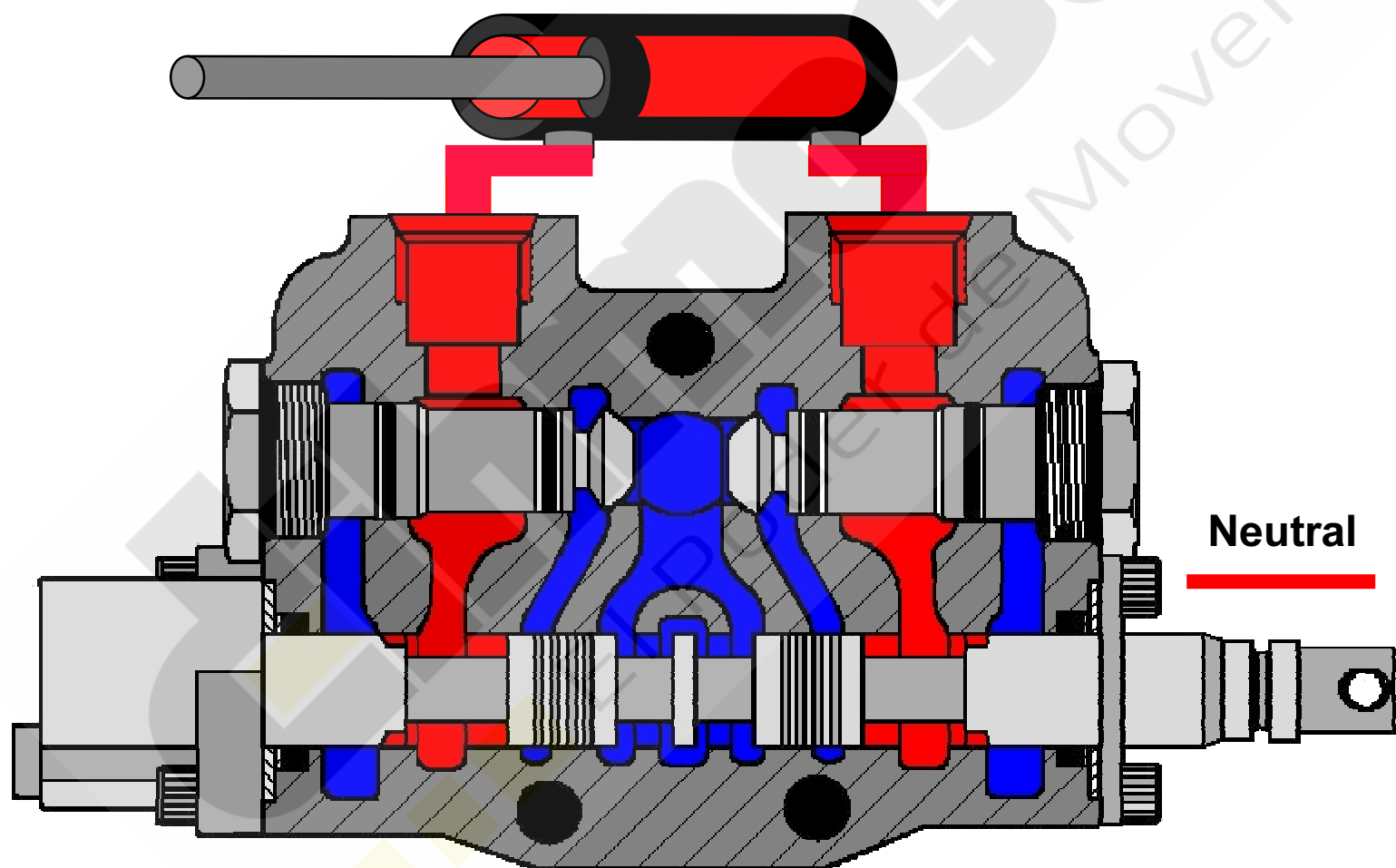
Sección de Trabajo Tandem



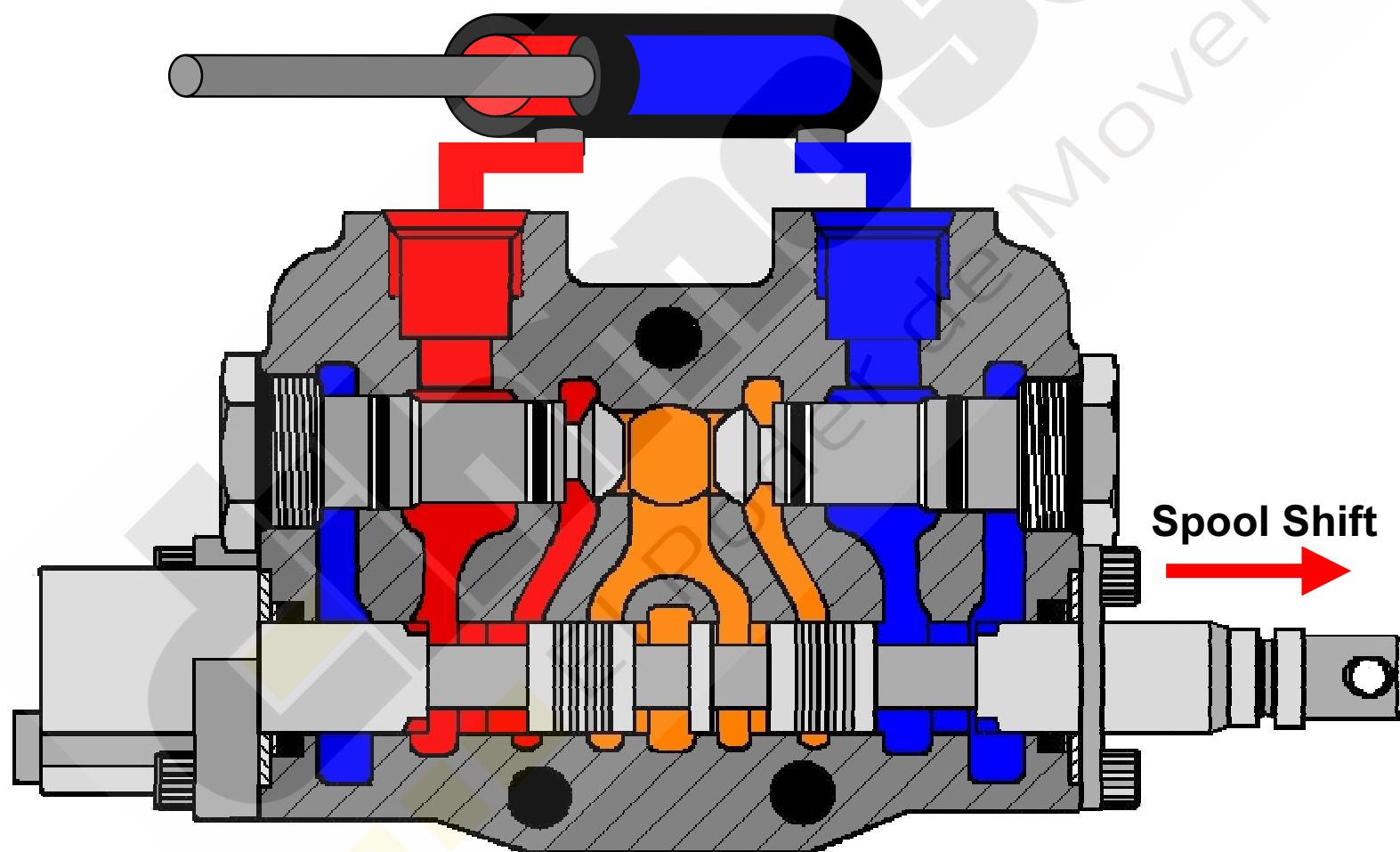
Sección de Trabajo Tandem



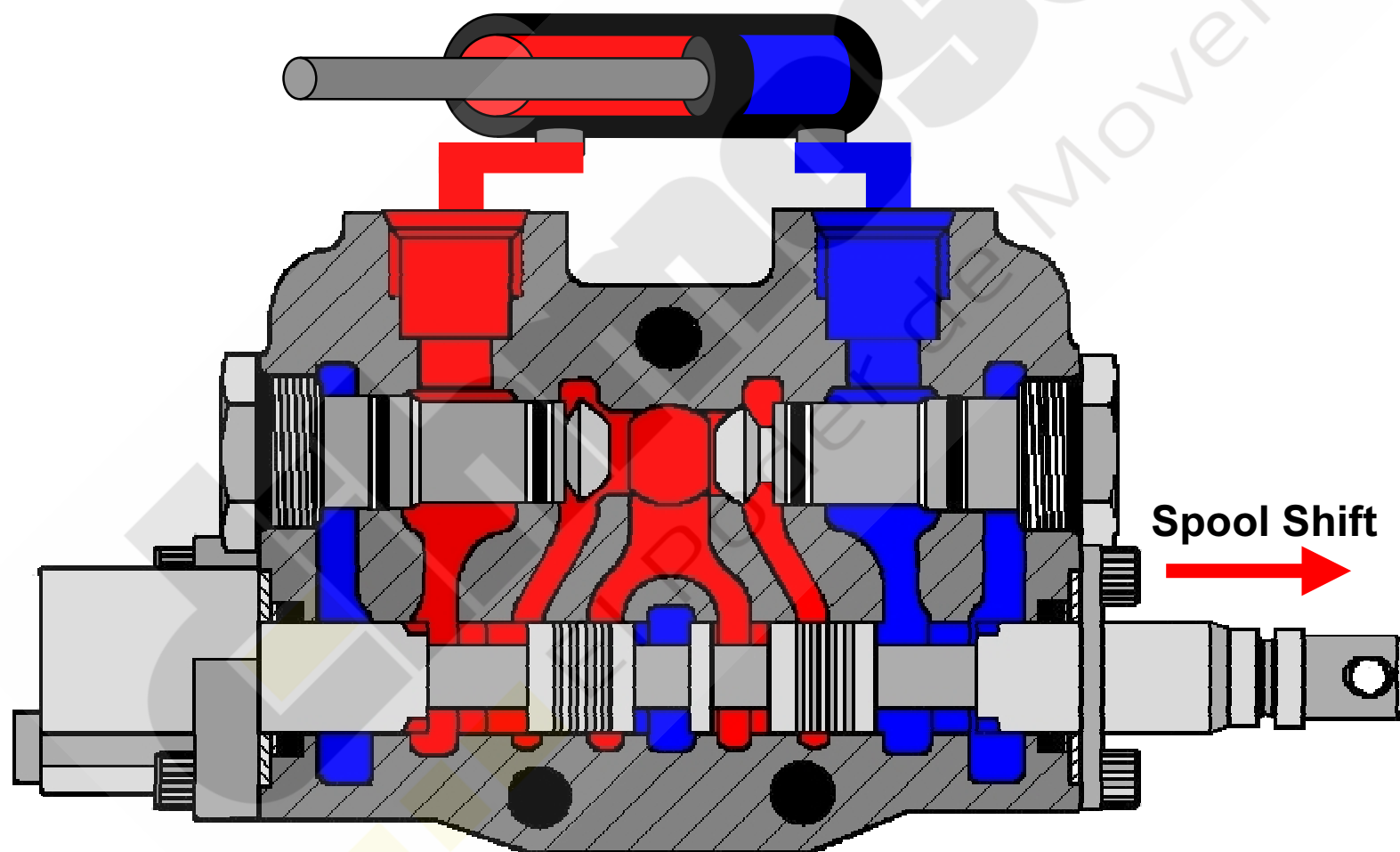
Sección de Trabajo Tandem



Sección de Trabajo Tandem

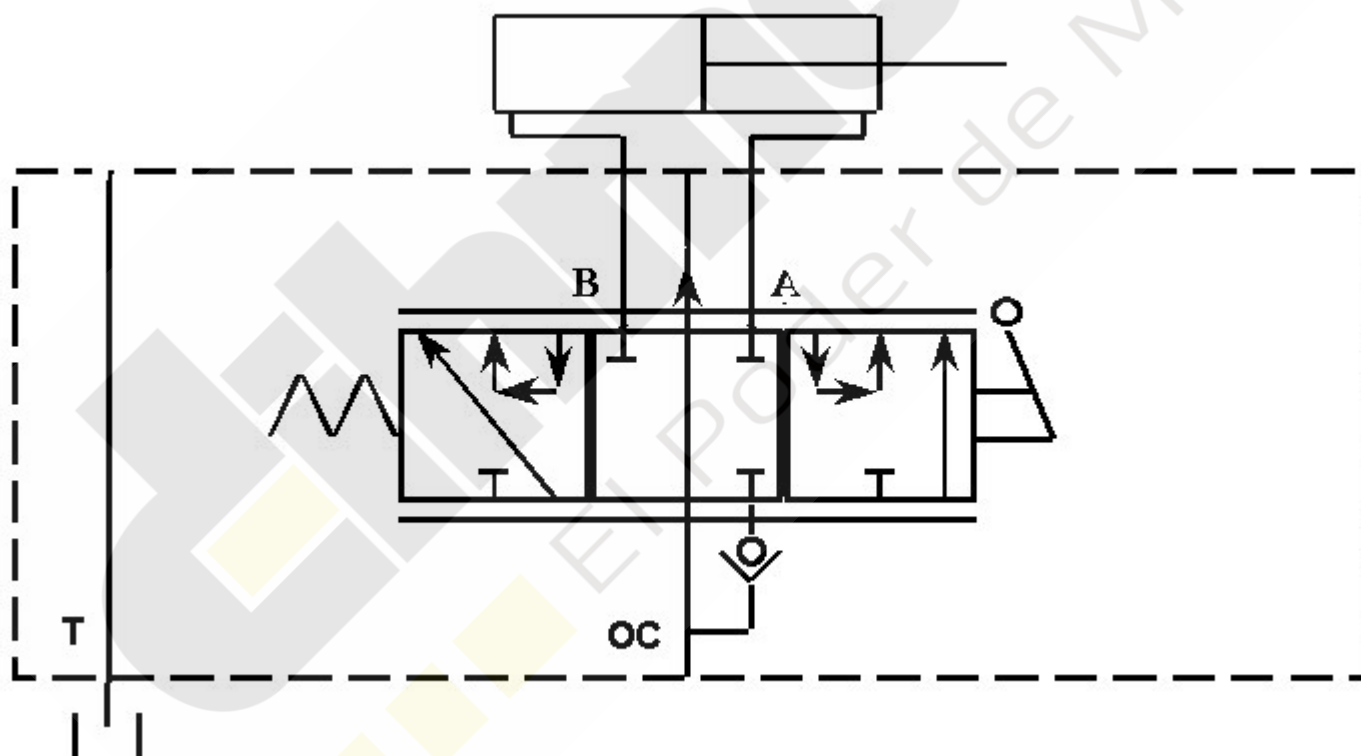


Sección de Trabajo Tandem

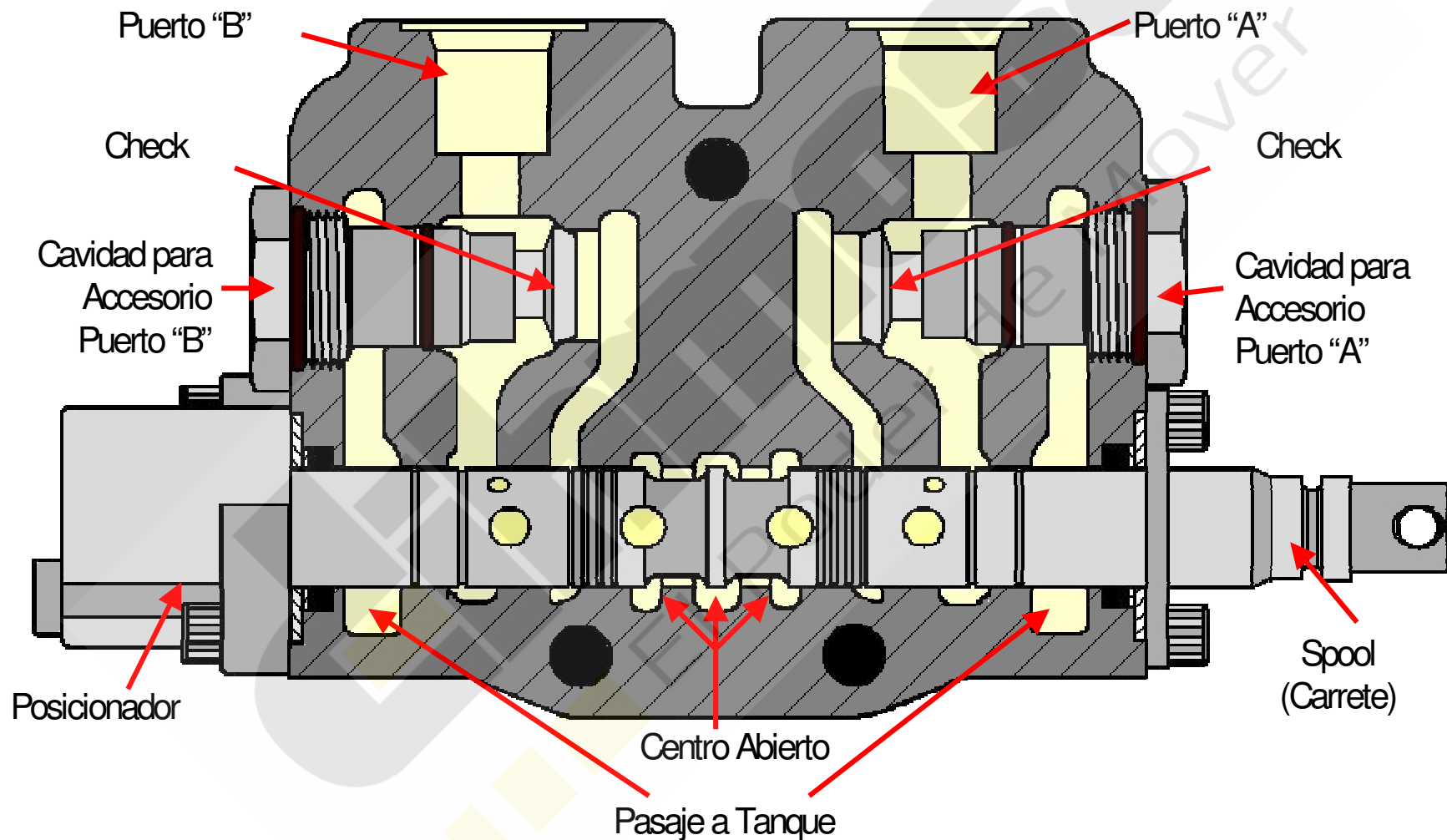


Sección Serie, Cilindro Doble Acción

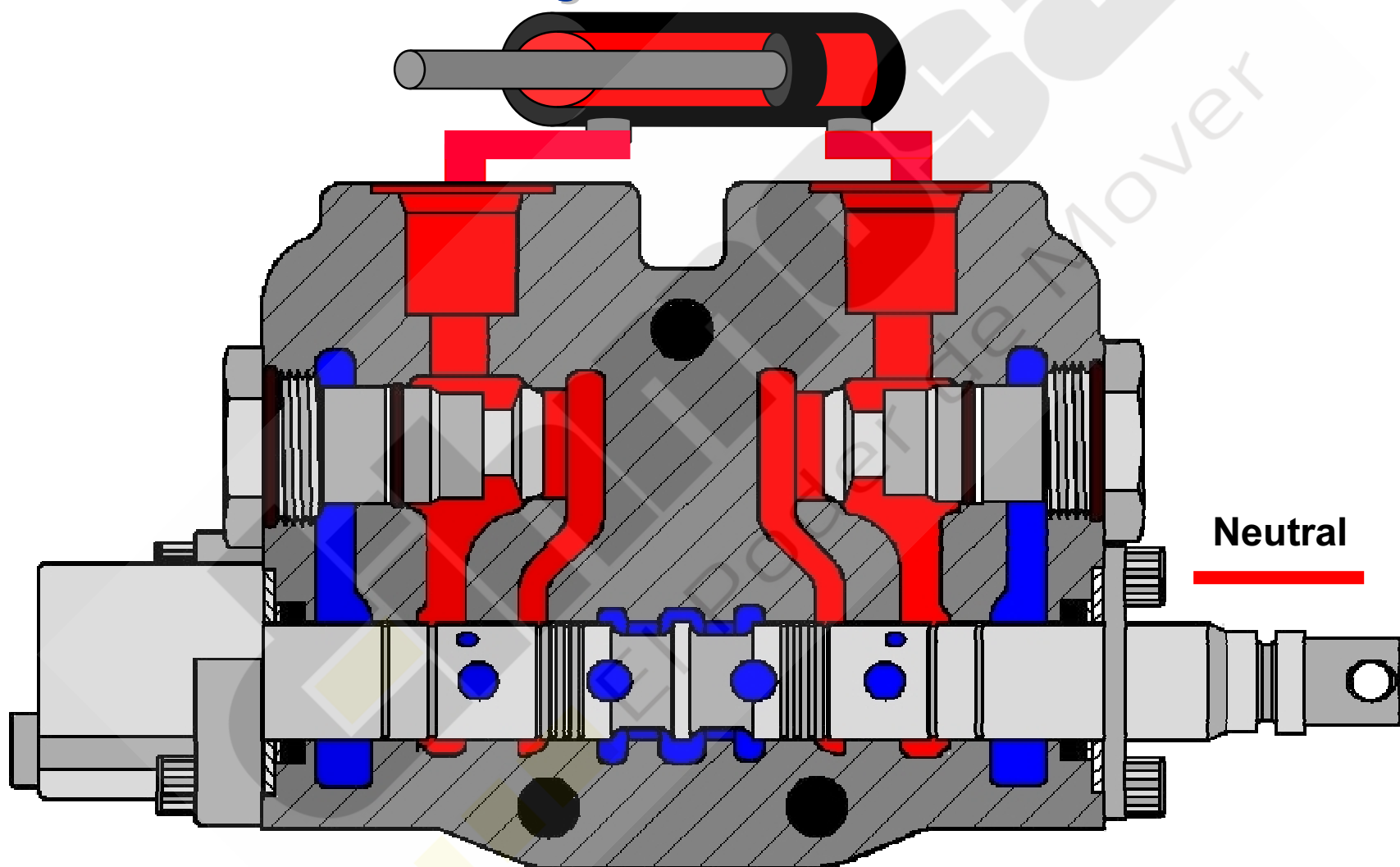
(4 -Vias, 3 posiciones, bloqueado en neutral)



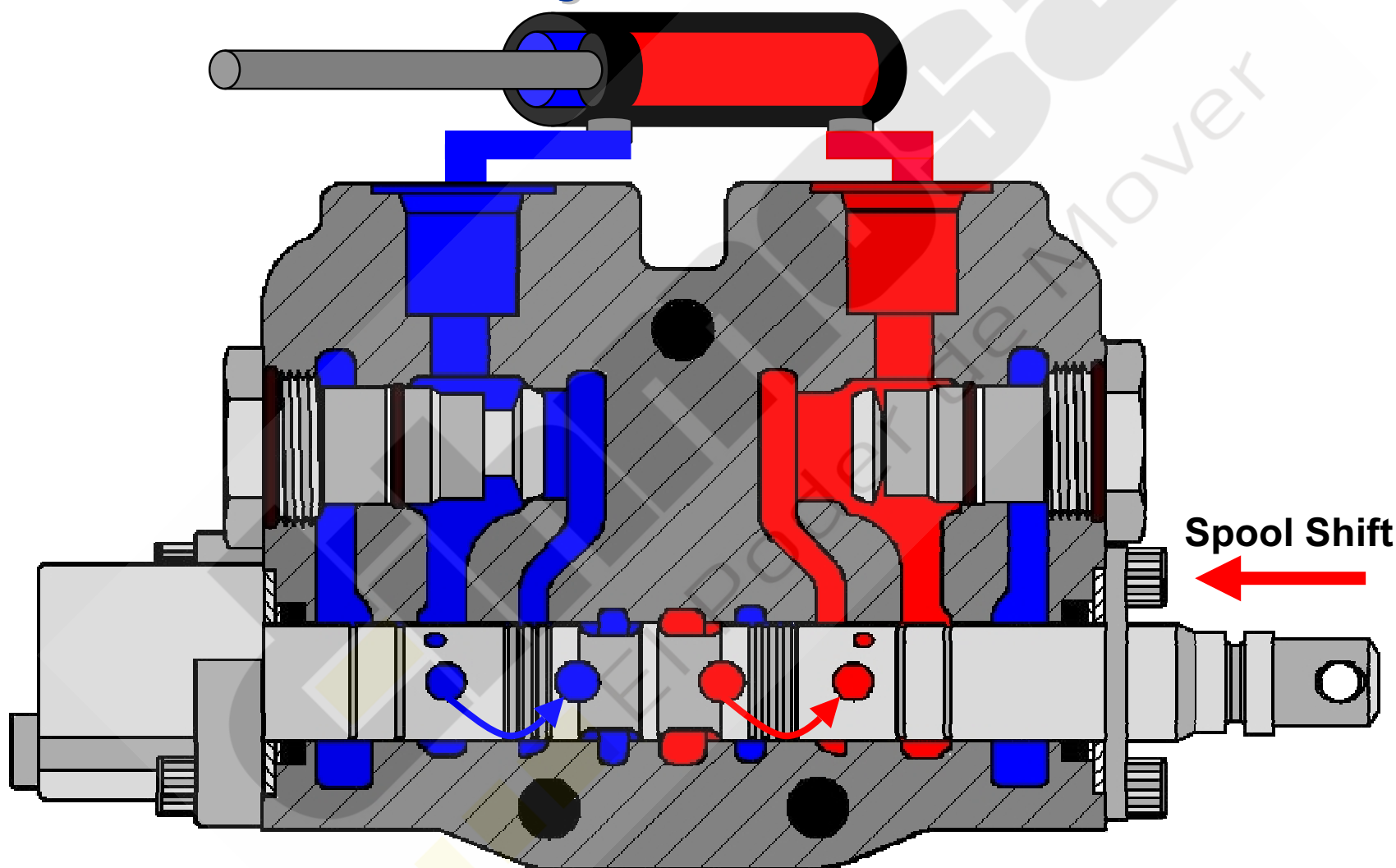
Sección de Trabajo Serie



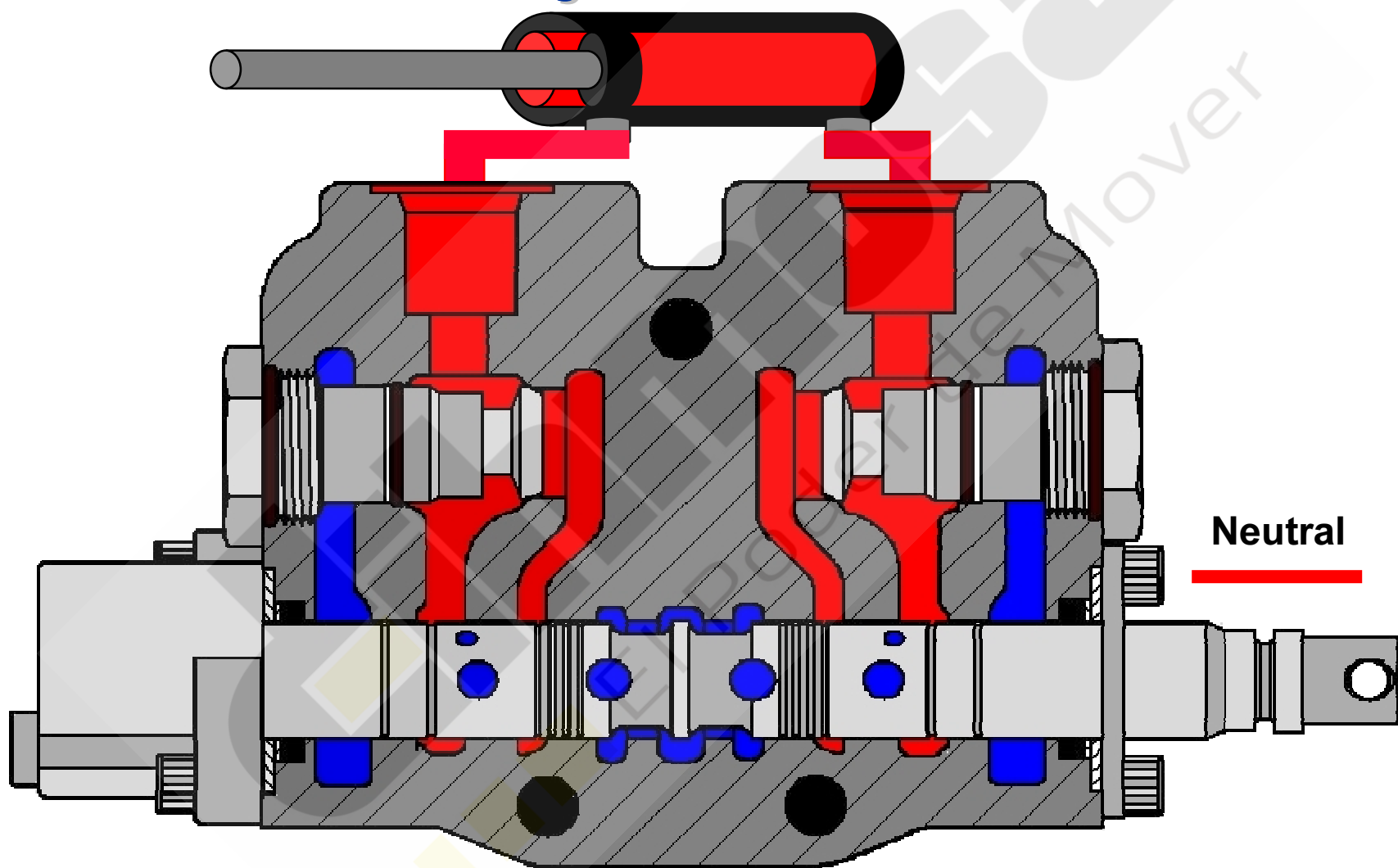
Sección de Trabajo Serie



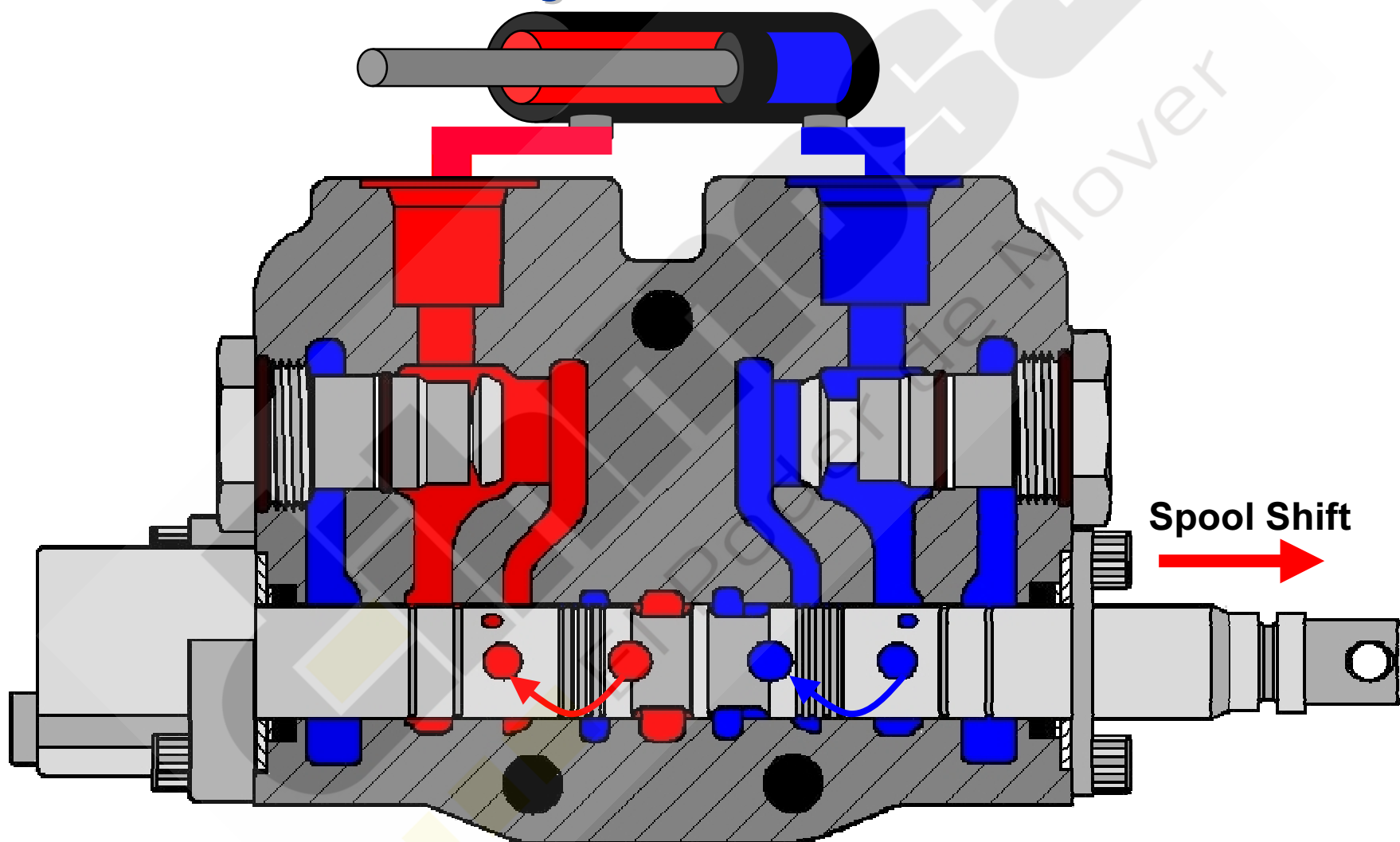
Sección de Trabajo Serie



Sección de Trabajo Serie



Sección de Trabajo Serie

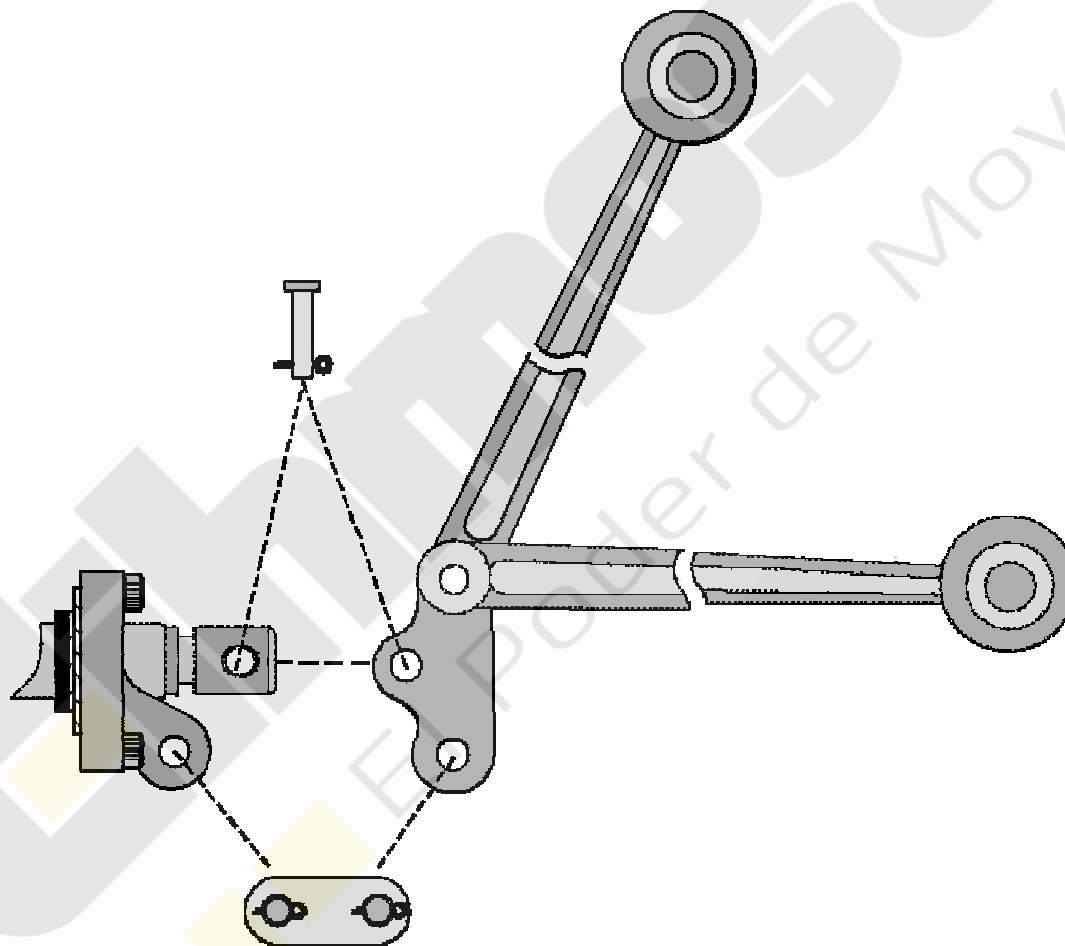


Modelo V20

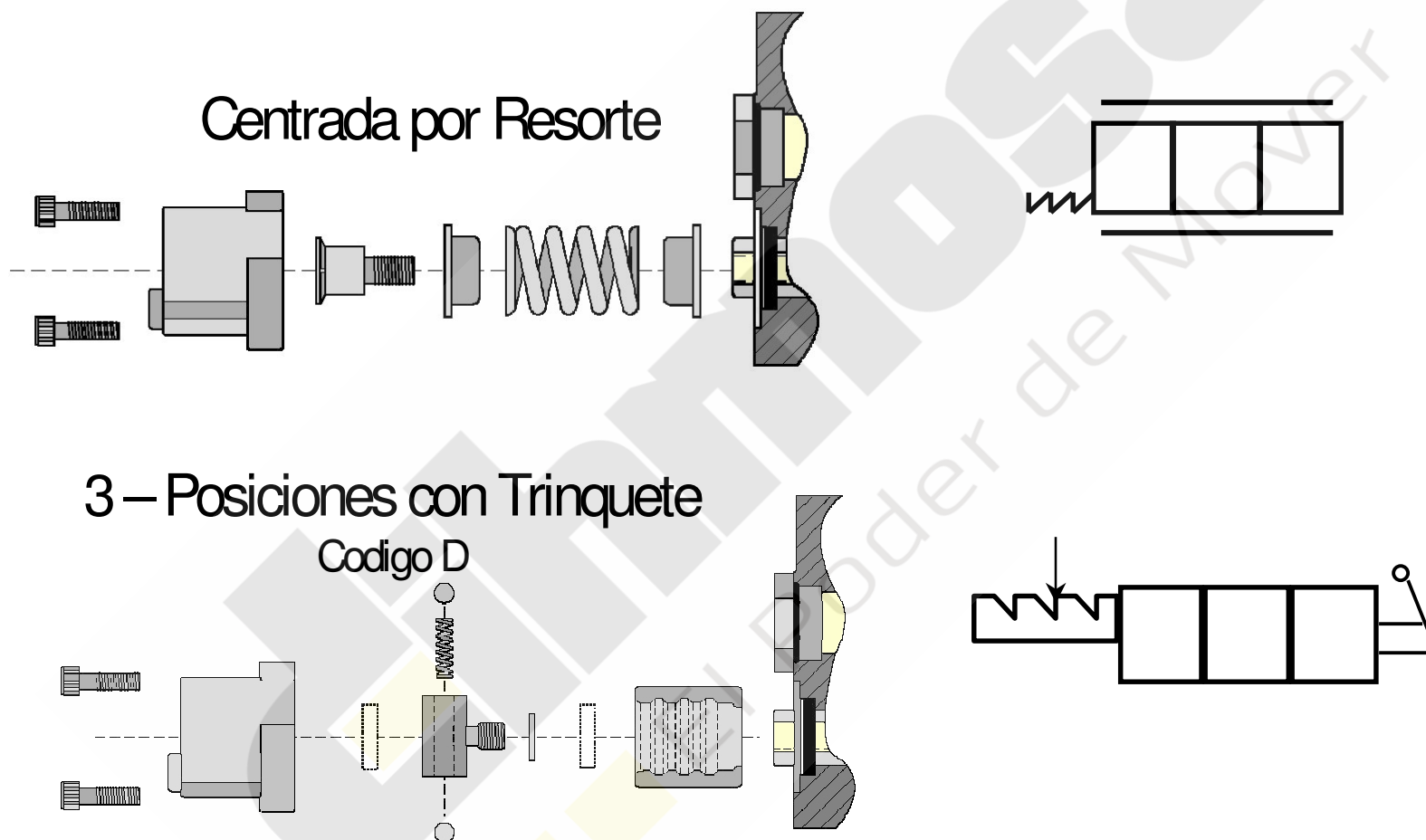
Accionadores de Spool

- Manual
- Joystick Mecanico
- Hidraulico
- Electro/Hidraulico

Manual....Palanca Vertical u Horizontal

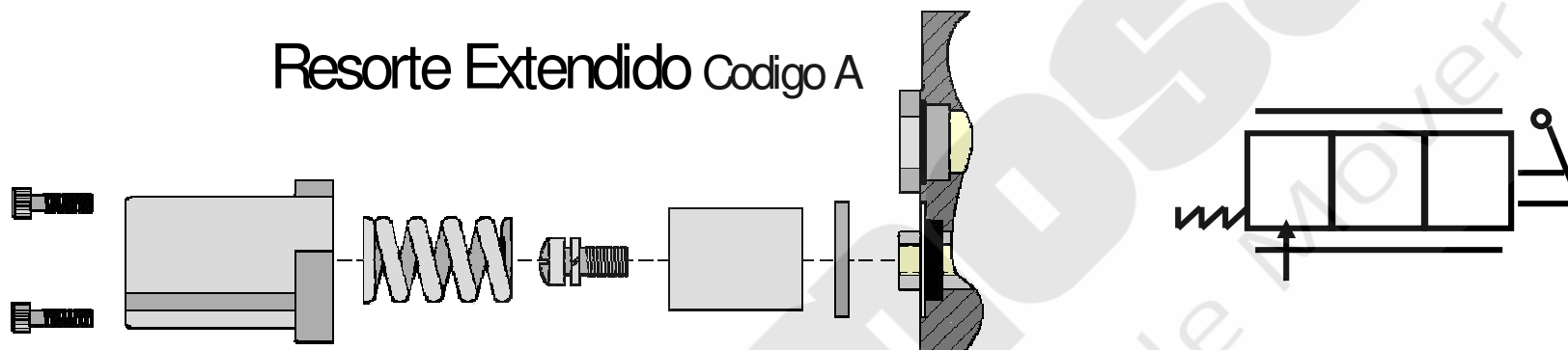


V20 Posicionadores Manuales

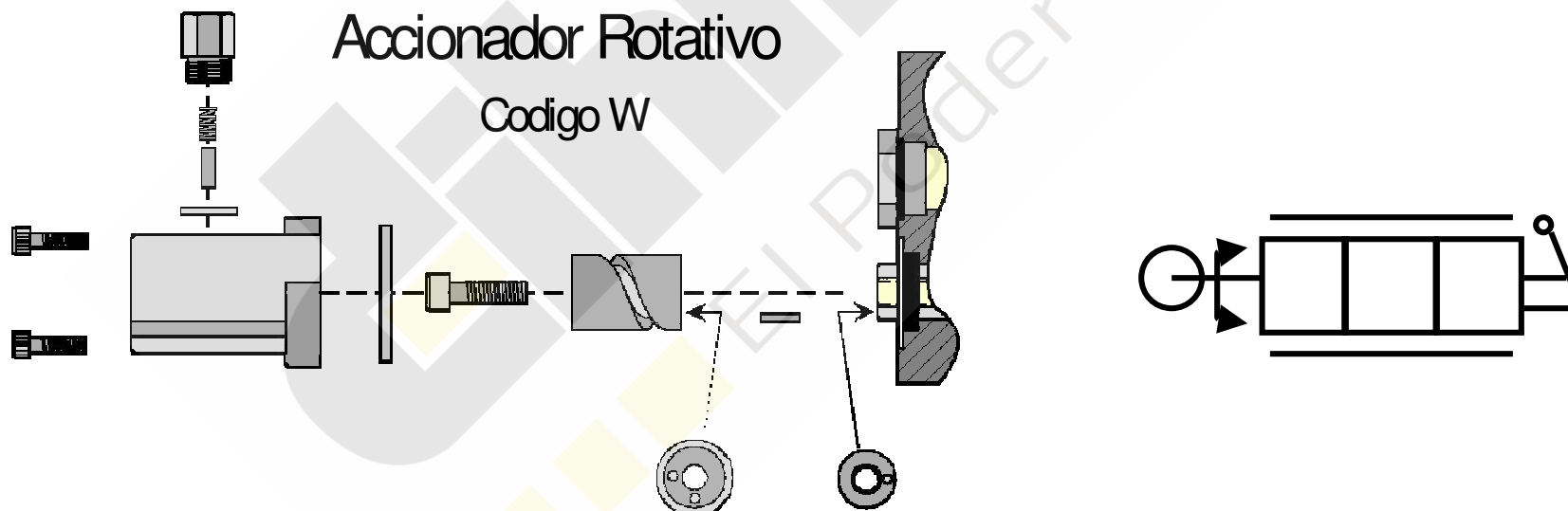


V20 Posicionadores Manuales

Resorte Extendido Código A



Accionador Rotativo
Código W



V20 Posicionadores Manuales

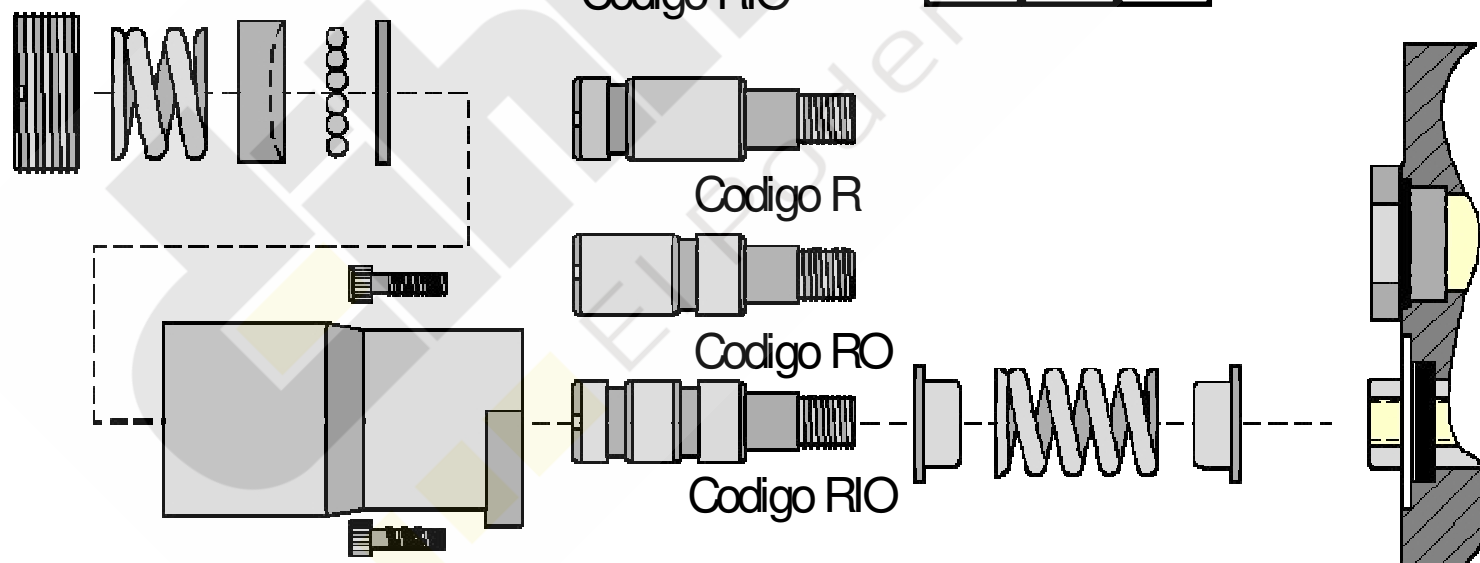
Trinquete - Spool dentro
Codigo R



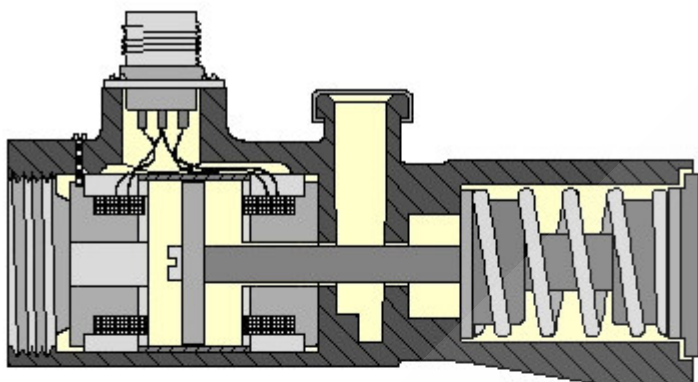
Trinquete - Spool fuera
Codigo RO



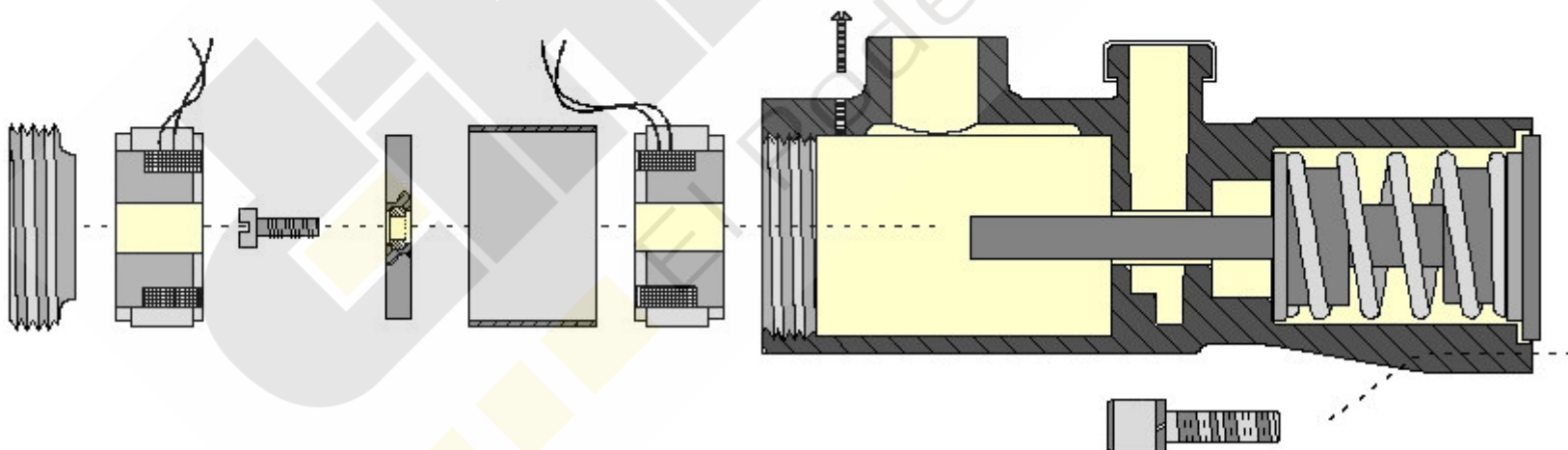
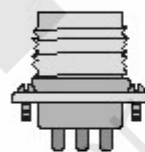
Trinquete 2 - Posiciones - dentro & fuera
Codigo RIO



V20 Posicionadores Manuales



Trinquete 2 – Posiciones con
Liberador ElectromagneticoCodigo E

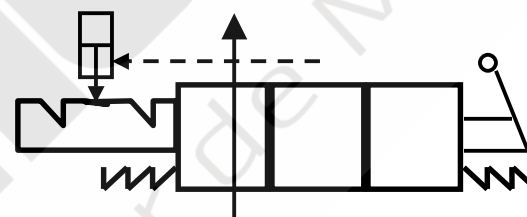


V20 Posicionadores Tambien Disponibles...

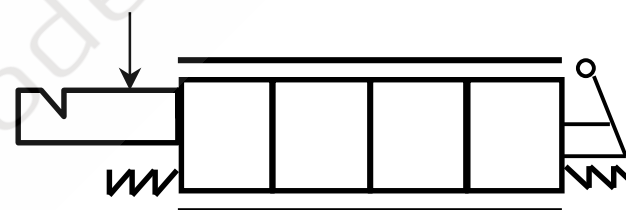
Manual
Codigo M



Knock Out
Codigo KO



4 – Posiciones con Trinquete
en Punto Flotante
Code K4



Joystick Mecanicos MJA

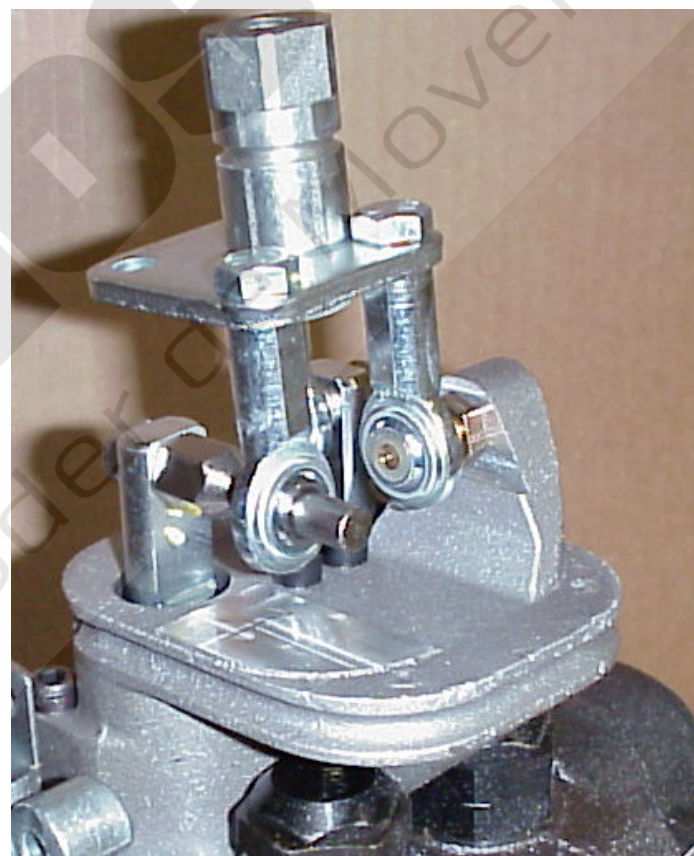
Una Palanca Para Controlar Dos Funciones

- Instalables en campo en valvulas existentes
- Configuraciones disponibles a mano derecha e izquierda.
- Puede ser usado en Spools de 3 posiciones y 4 posiciones con punto flotante

Ideales para la gran gama de aplicaciones hidraulicas incluyendo cargadores frontales, retroescavadoras



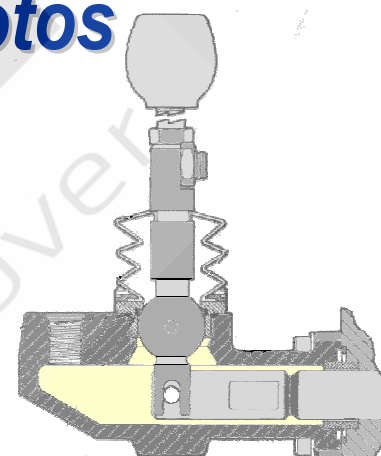
Joystick Mecanico



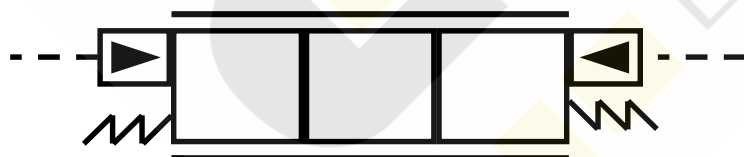
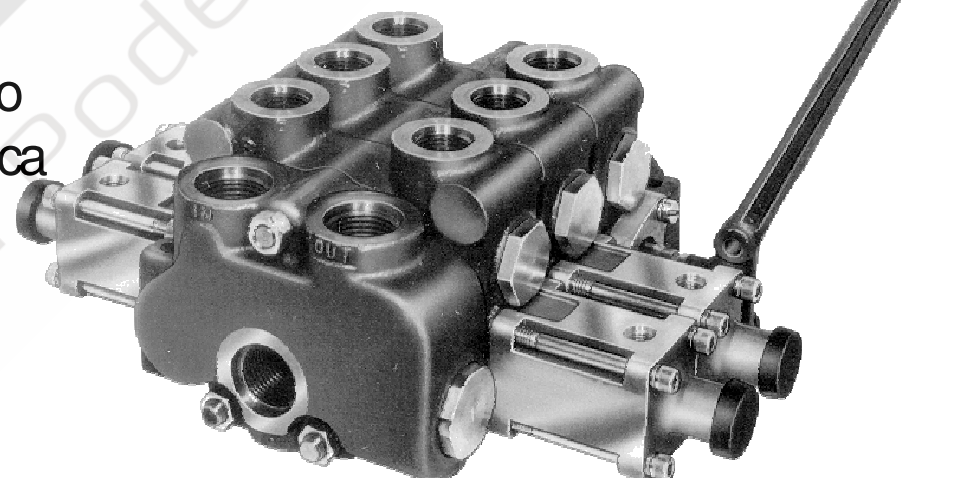
V20 Accionadores Hidraulicos Remotos

Especificaciones:

- Rango Max. De Presión... 500 psi (34.5 bar)
- Presión Piloto para iniciar flujo... 60 psi (4.2 bar)
- Presión Piloto a carrera completa... 300 psi (20.7 bar)
- Flujo del Piloto... 2 to 4 gpm (7.5 to 15 lpm)
- Codigos
 - HR...Estandar
 - HRO... con sobreaccionador de Tornillo
 - HRH... con sobre accionador de Palanca



(HRH)



V20 SOL-I, EPC-I Control por Solenoide

- On/Off
- Proporcional
- Puerto Piloto Interno
- Suministro Interno
(Generacion y regulacion de Presión)
- Opcion de Palanca
- Limitador de Carrera



Especs. del Accionador Solenoide

Especs Electricas:

- Resistencia de la Bobina @ 68° F (20° C)
 - 12VDC Proporcional (1.6 Amp) ... **7.5 ohms**
 - 12VDC On/Off (1.8 Amp) ... **6.5 ohms**
 - Contactar a fabrica para opción 24VDC
- Señal Proporcional... PWM, 50 Hz



On/Off (SOL)

Especs. del Accionador Solenoide

Requisitos del suministro Piloto:

- Presión min... 250 psi (17 bar) *
- Presion Max... 750 psi (51.8 bar)
- Flujo (min)... 1.5 gpm (5.7 lpm)
- Filtración requerida... ISO 17/15/12 (nominal)
- Tiempo de respuesta... menos de 150 milisegundos**
- Histeresis del fujo... menos de 5%

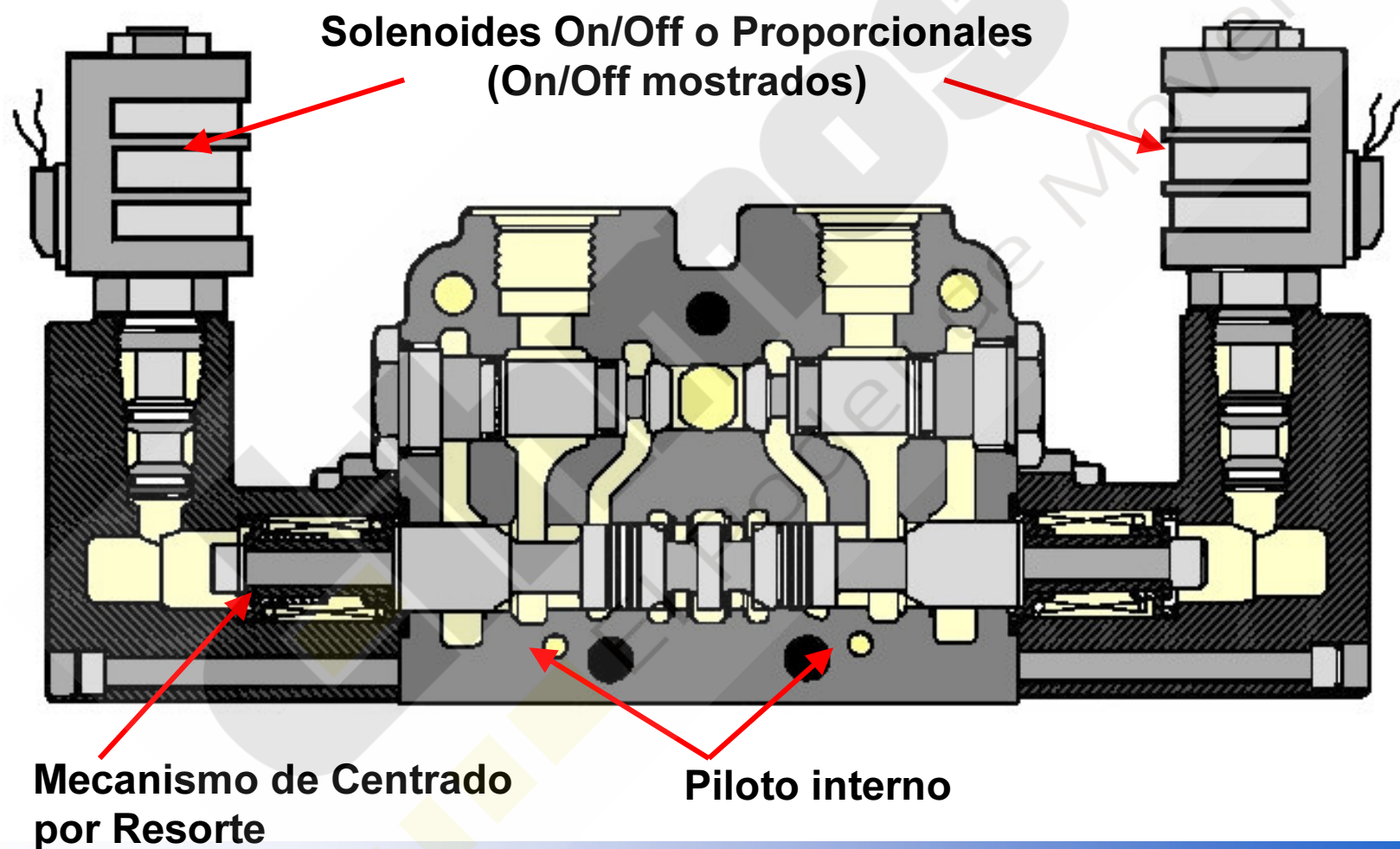
* 250 psi (17 bar) arriba de la presión de salida de la calvula

** De neutral a flujo completo y viceversa



On/Off (SOL)

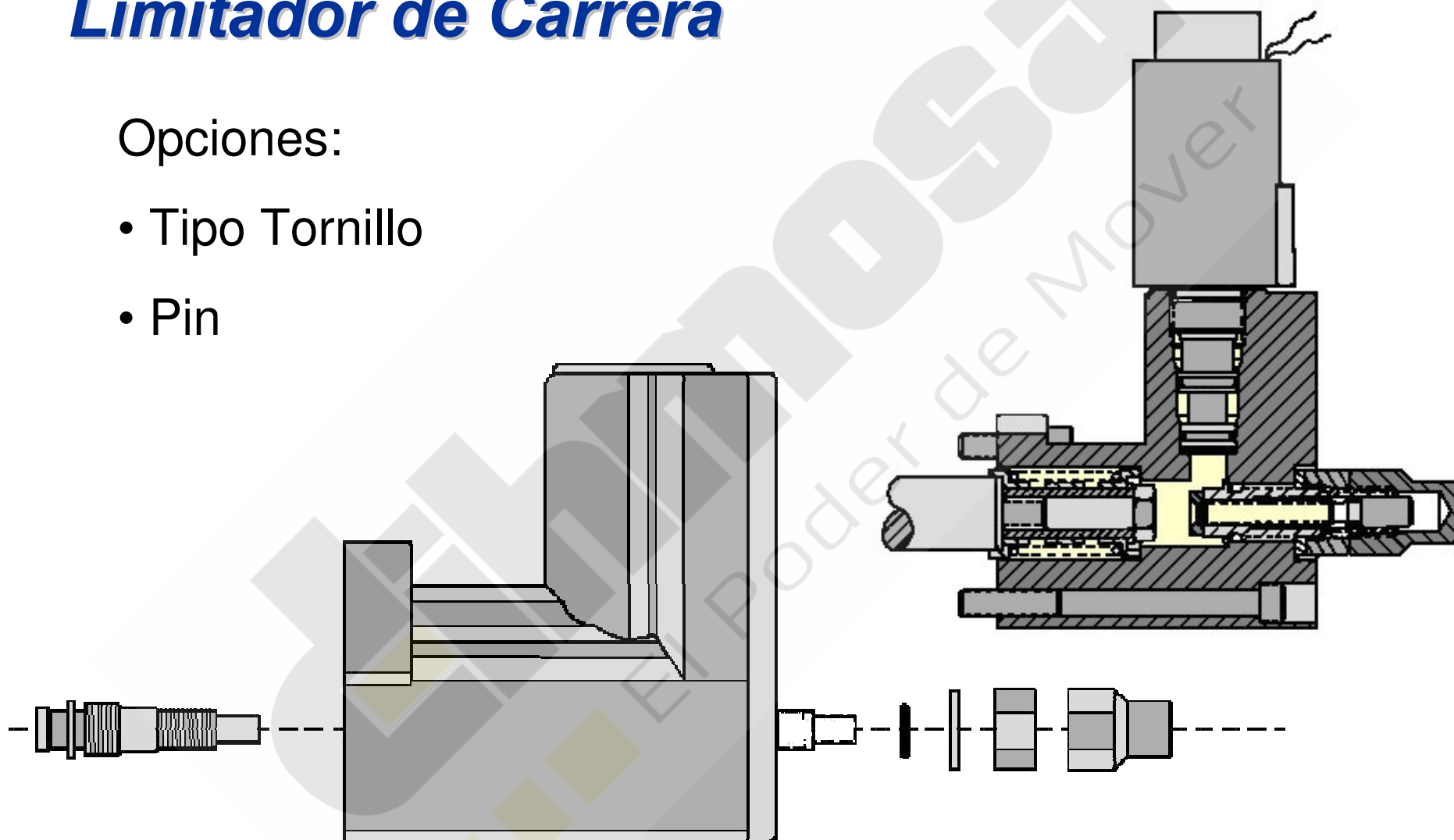
Accionador por Solenoide: EPC, On/Off



Limitador de Carrera

Opciones:

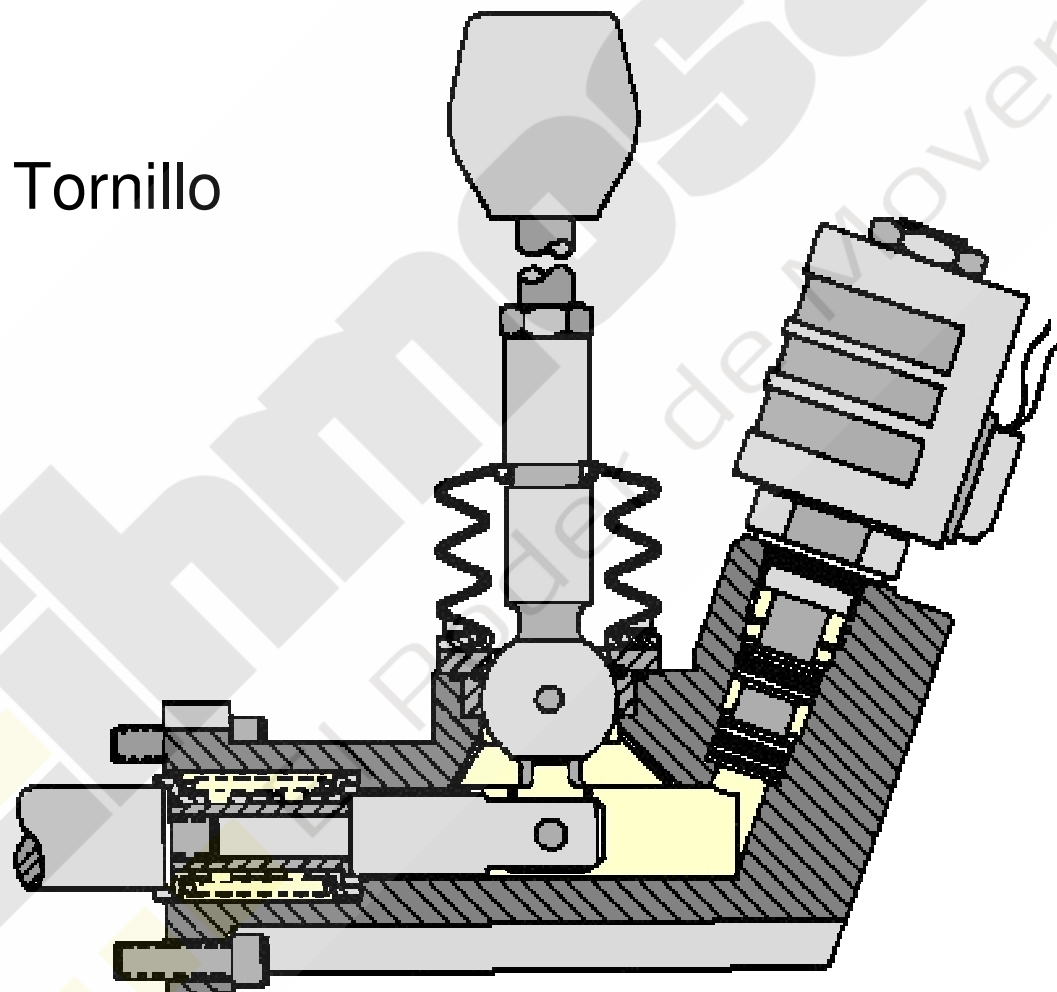
- Tipo Tornillo
- Pin



Accionador con Palanca y Solenoide

Opción:

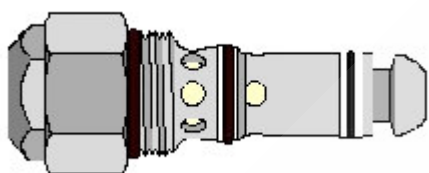
- Limitador de Tornillo



Modelo V20 Accesorios para Puerto de Trabajo

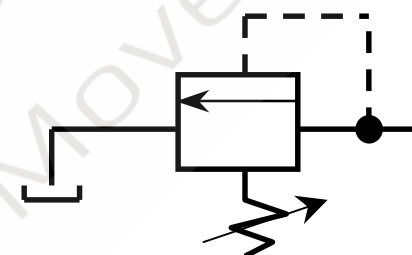
- Valvulas de Alivio
- Check Anticavitacion
- Restrictores de Flujo,
Unidireccionales

V20 Accesorios para Puerto de Trabajo



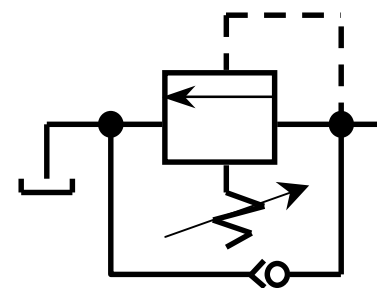
Valvula de Alivio

- RC
- RCS (Series)

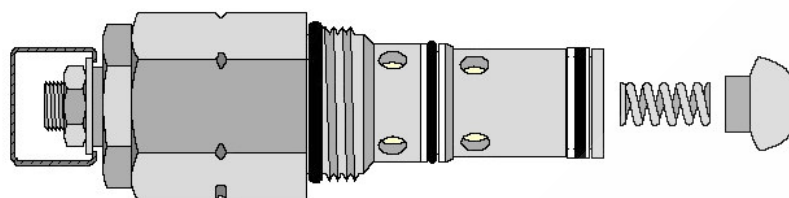


Valvula de Alivio con
Check Anticavitacion

- RCA

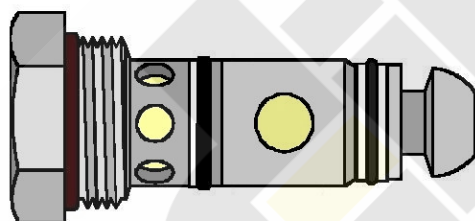
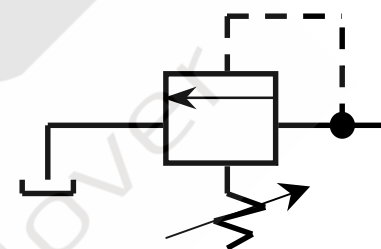


V20 Accesorios para Puerto de Trabajo

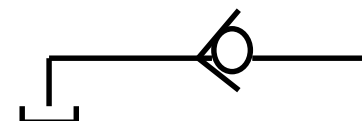


Valvula de Alivio
Piloteada

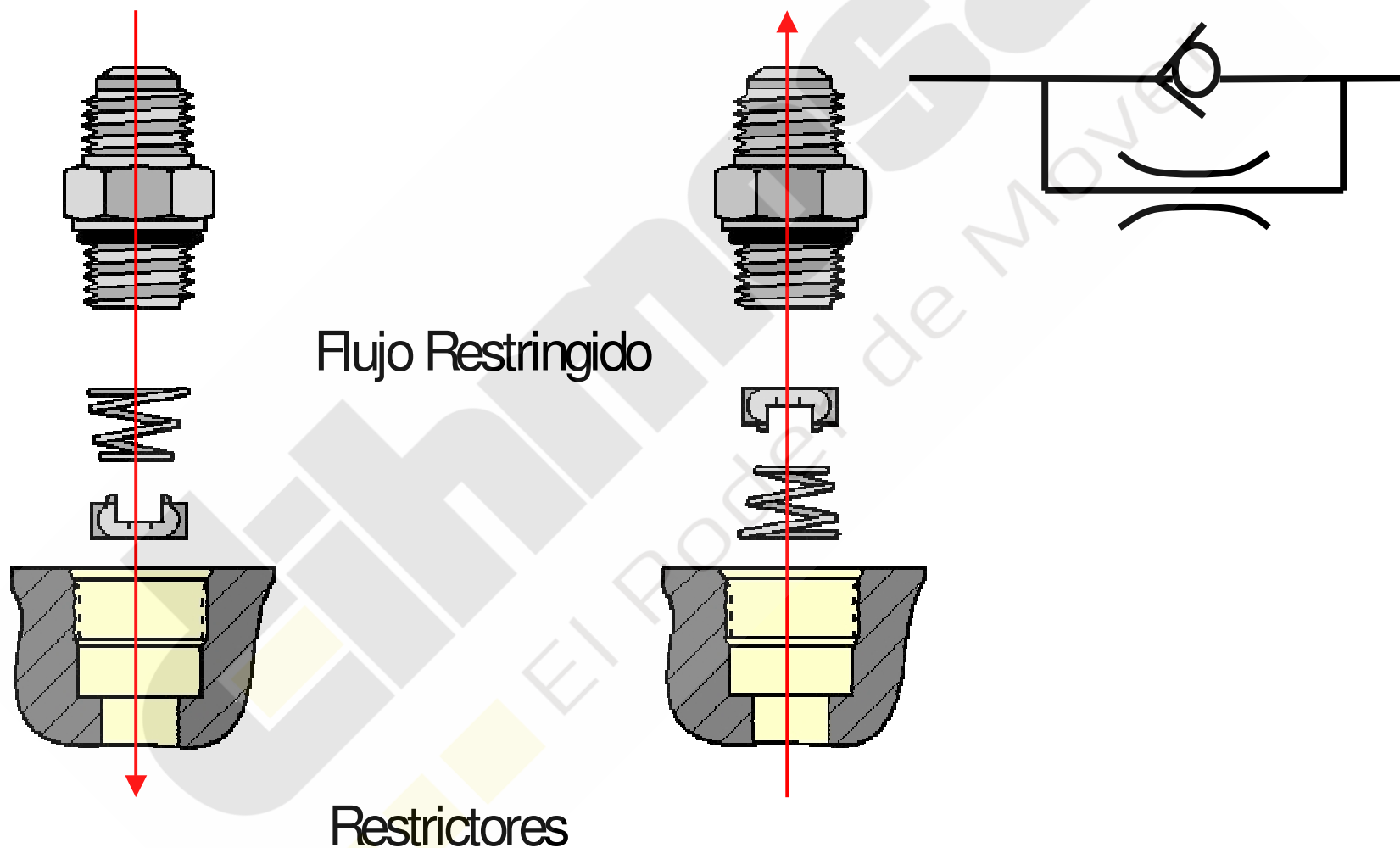
- Ajustable (RP20A)
- Anti-ajuste (RP20N)



Check Anticavitacion



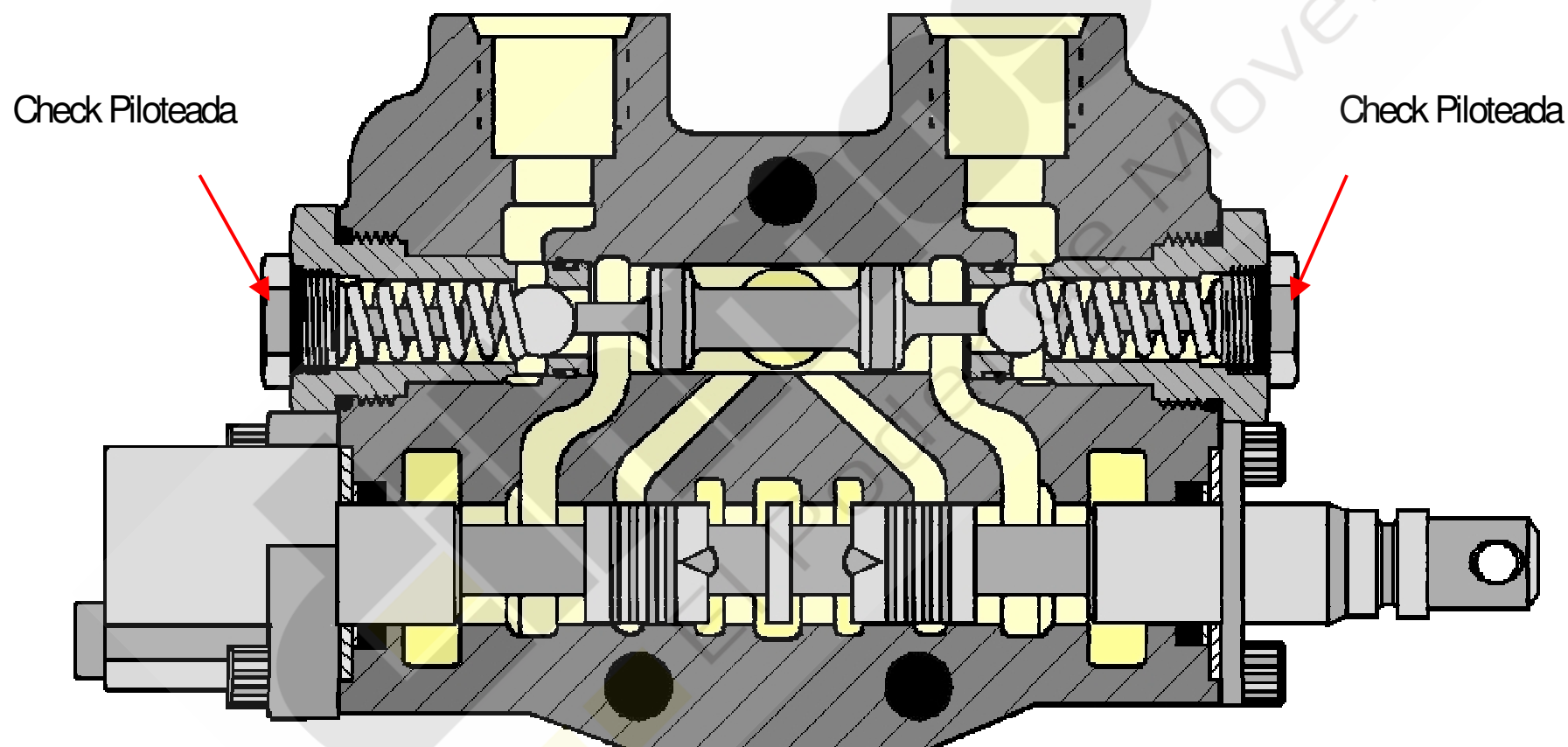
V20 Accesorios para Puerto de Trabajo



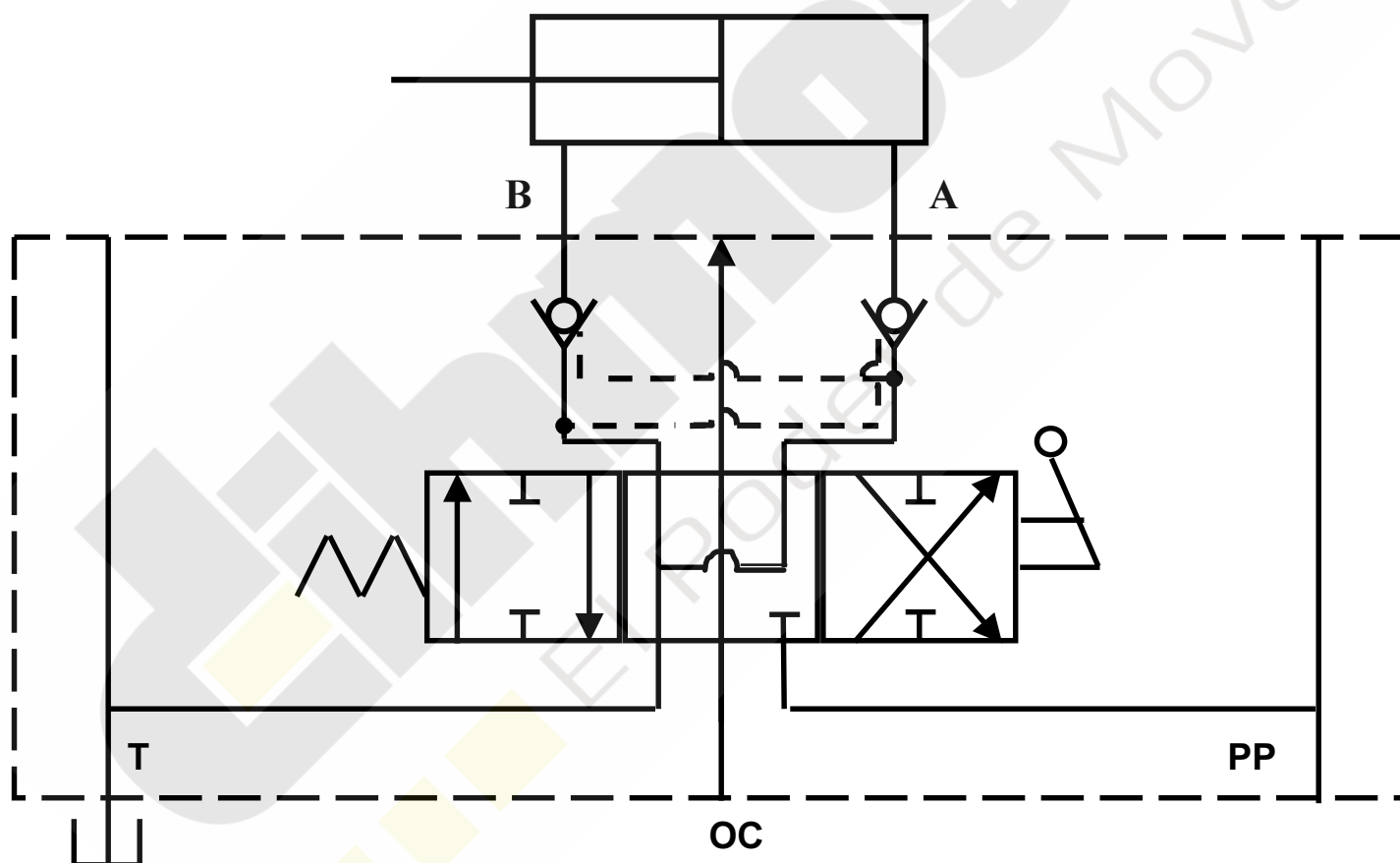
Otros Circuitos.

- Centro Abierto con Checks Piloteadas
- Centro Cerrado / Load Sense
- Compensadas por Presión

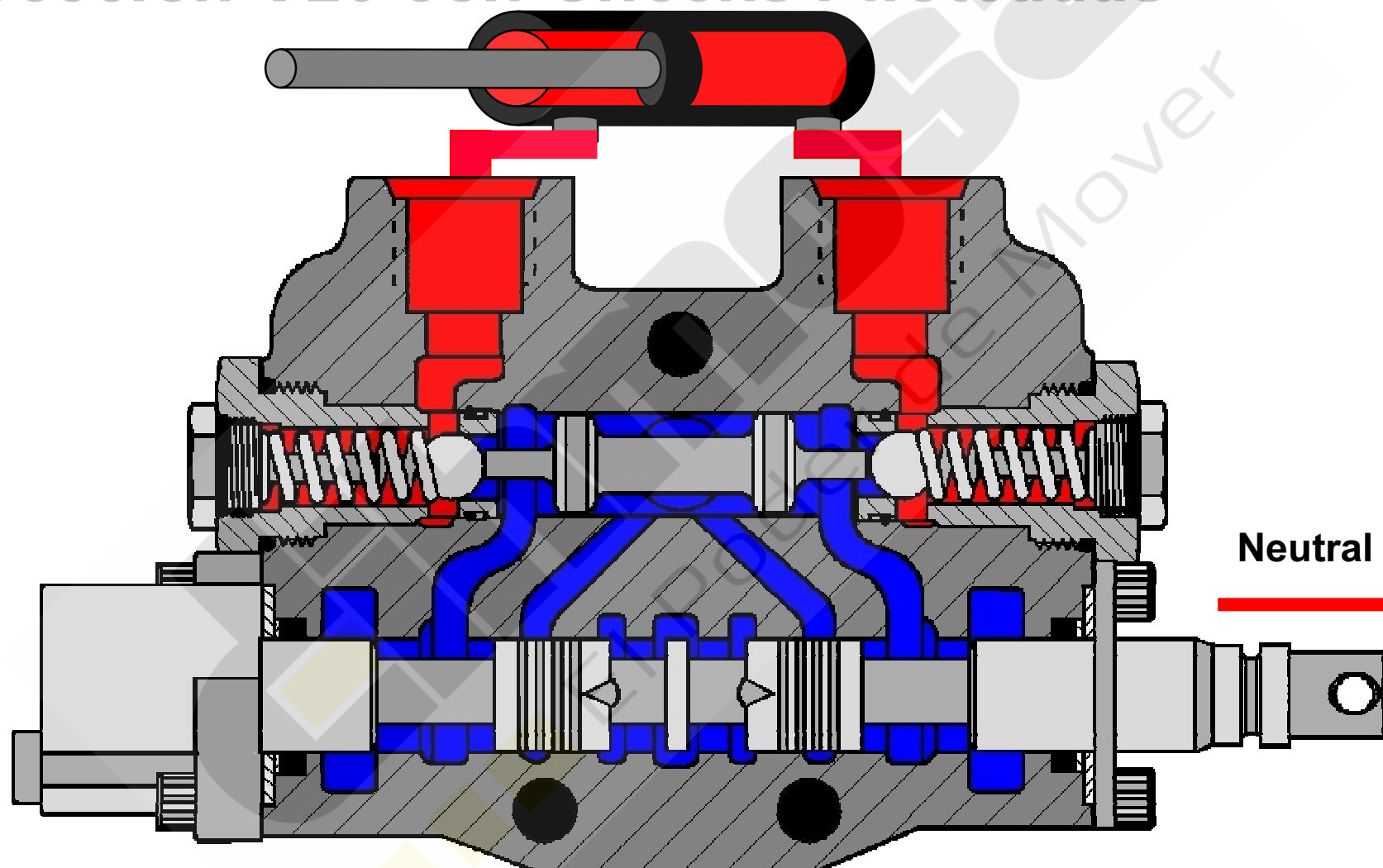
Sección V20 con Checks Piloteadas



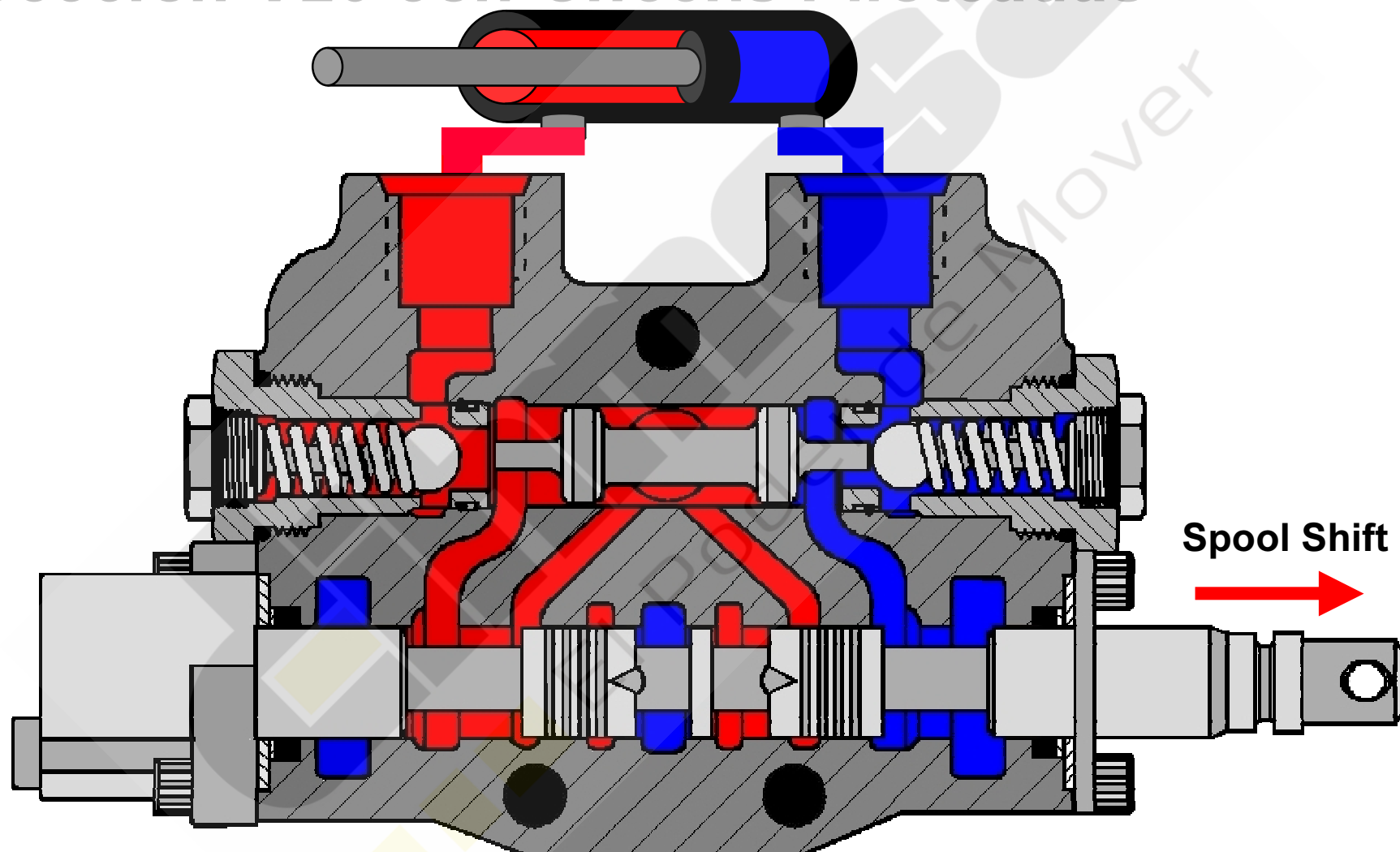
Sección V20 con Checks Piloteadas



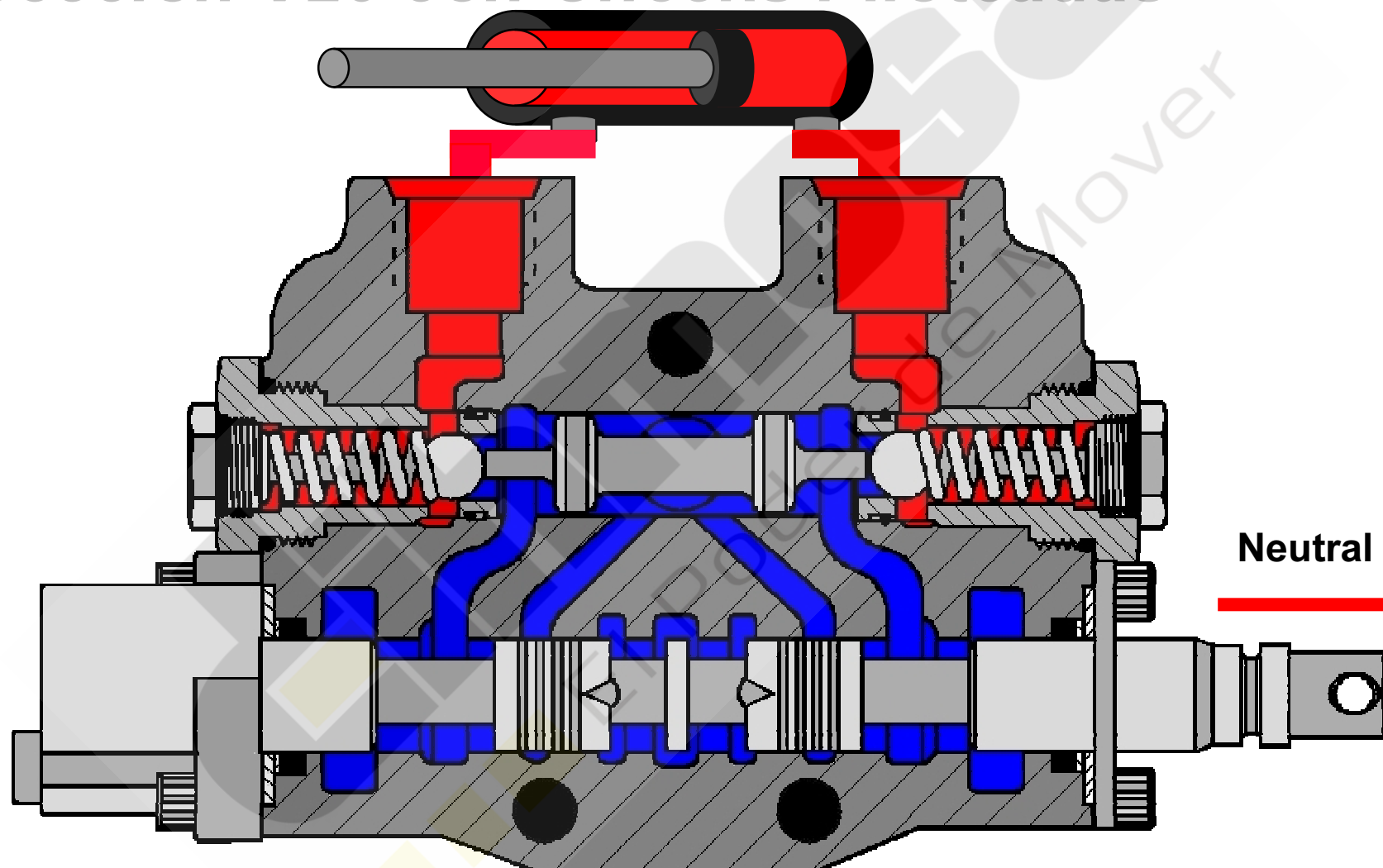
Sección V20 con Checks Piloteadas



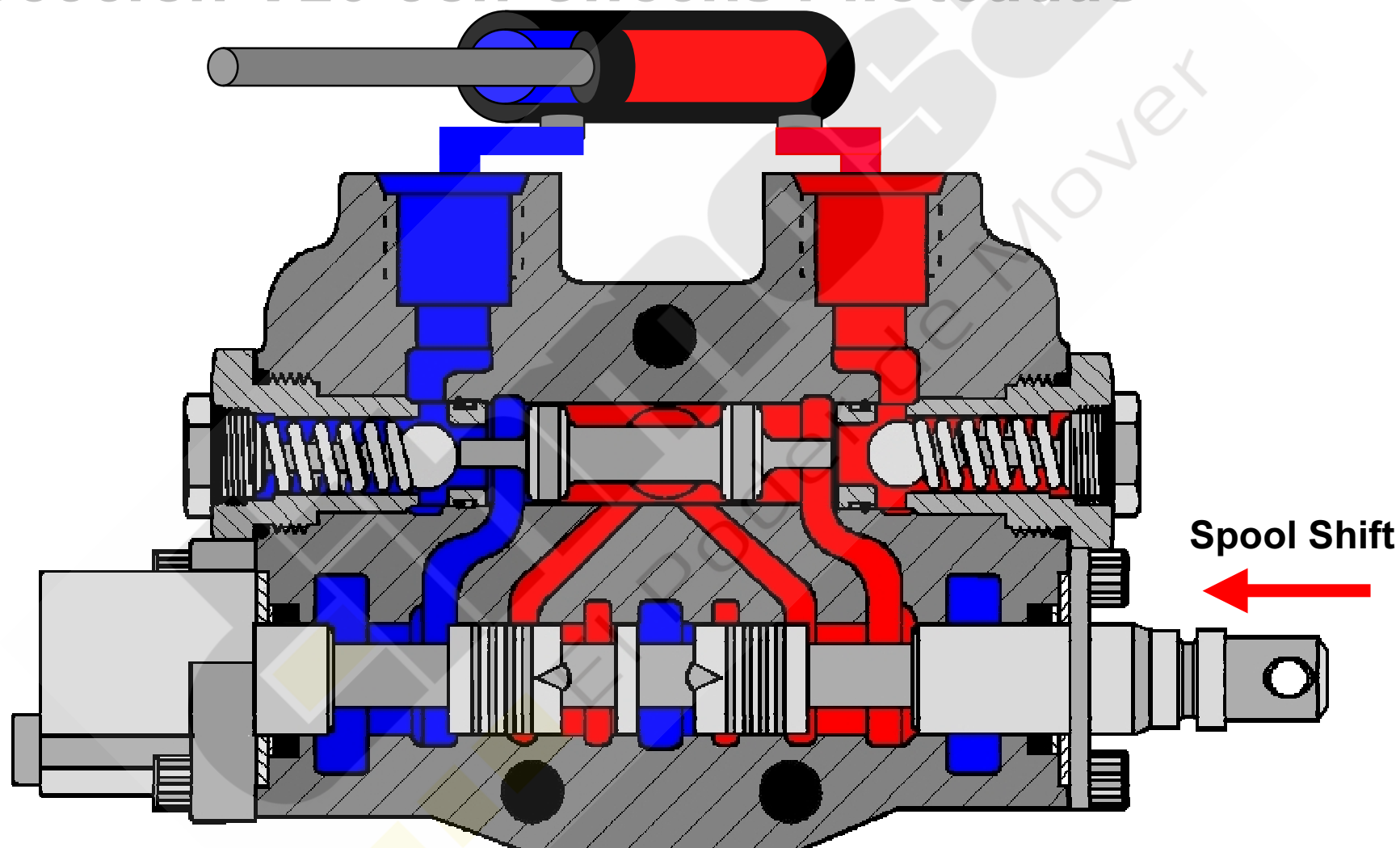
Sección V20 con Checks Piloteadas



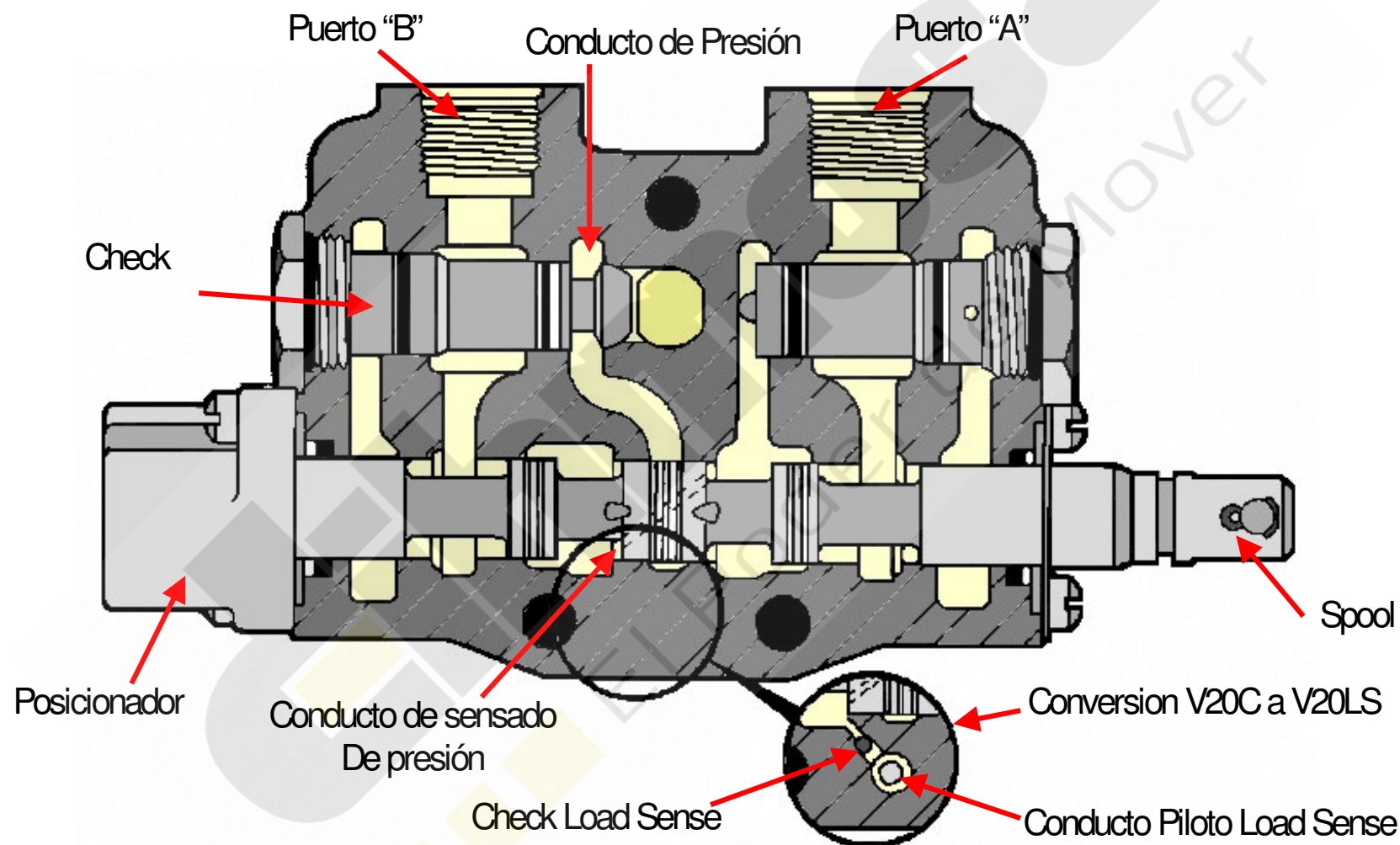
Sección V20 con Checks Piloteadas



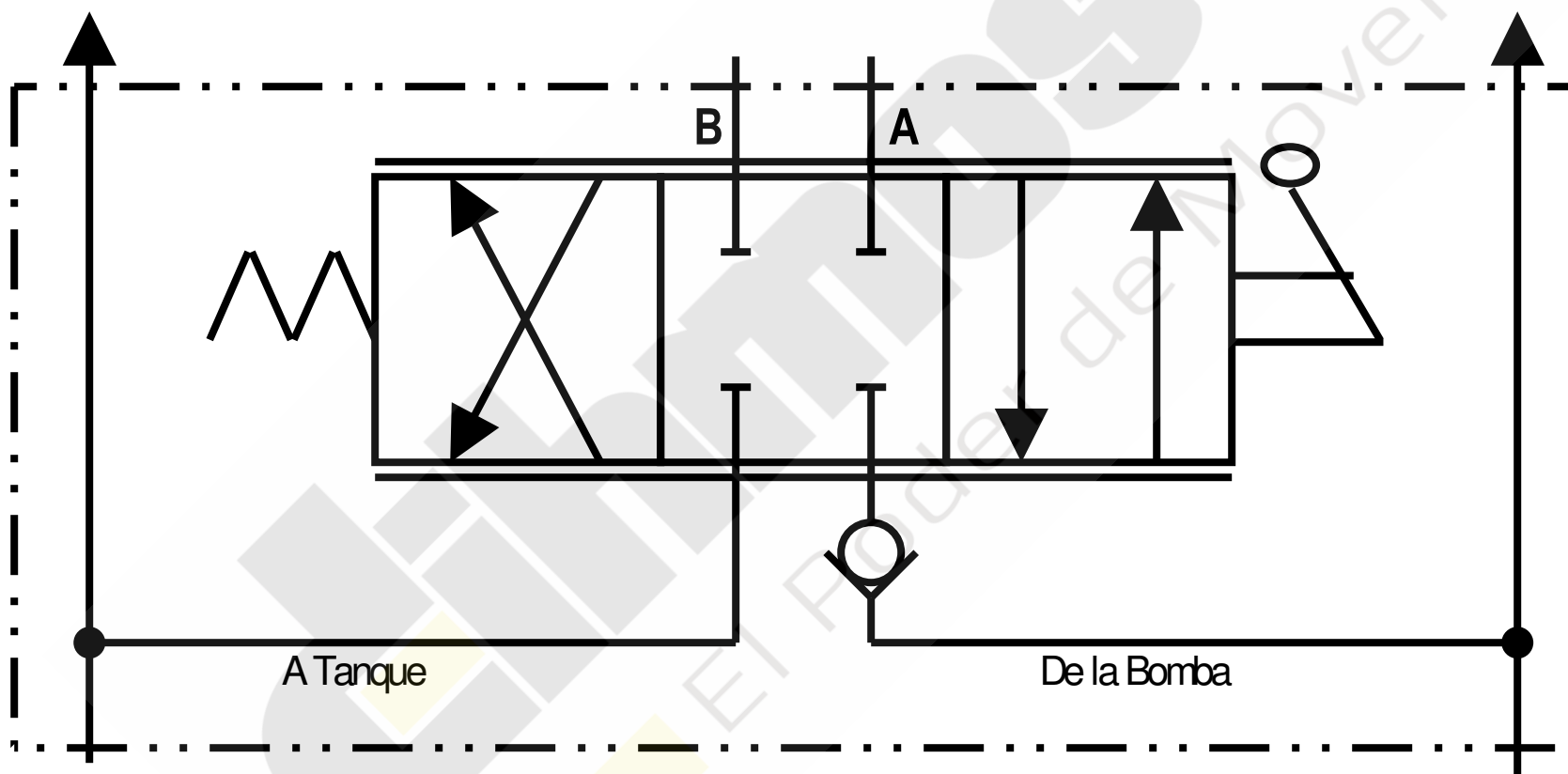
Sección V20 con Checks Piloteadas



Seccion Centro Cerrado/Load Sense

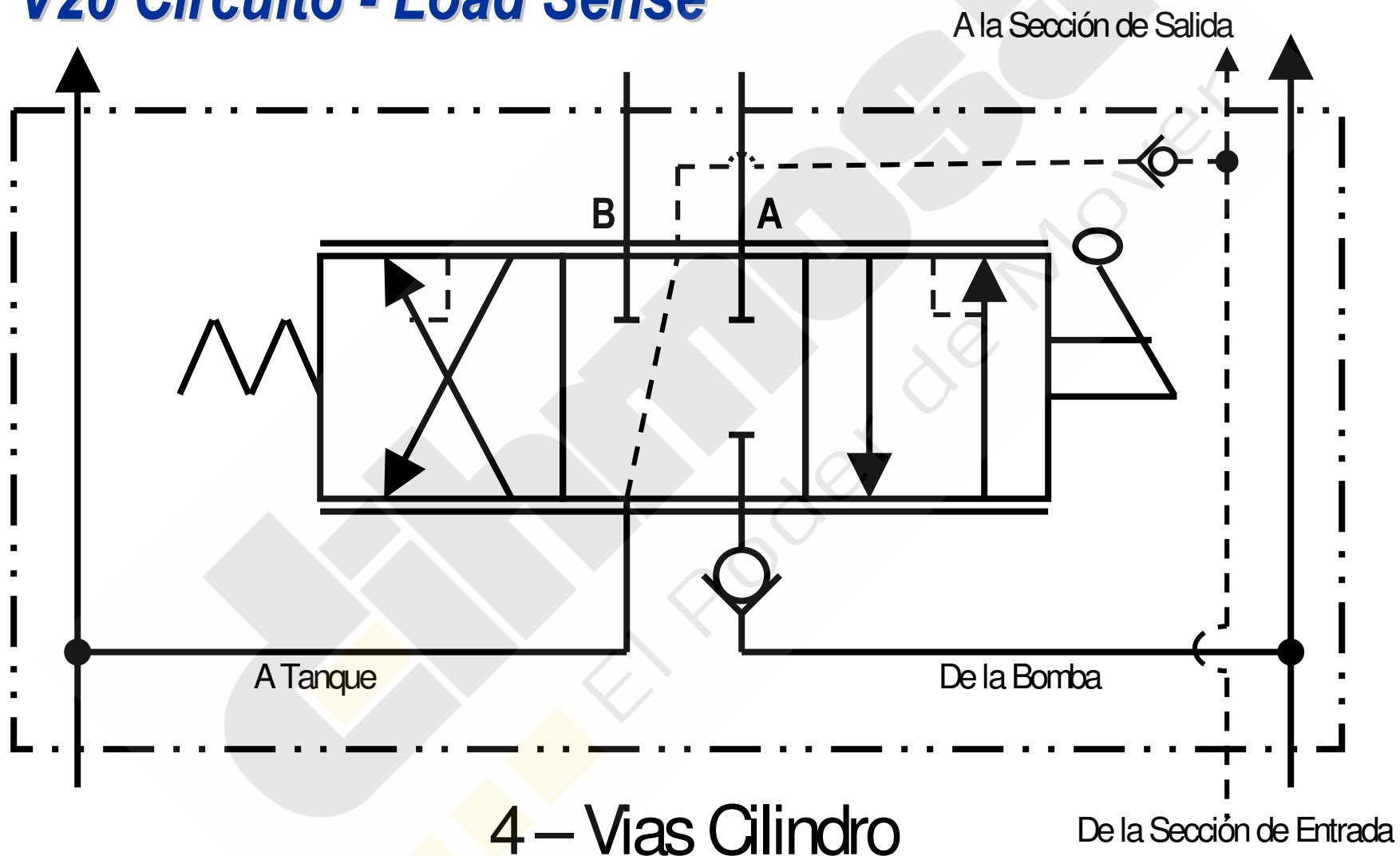


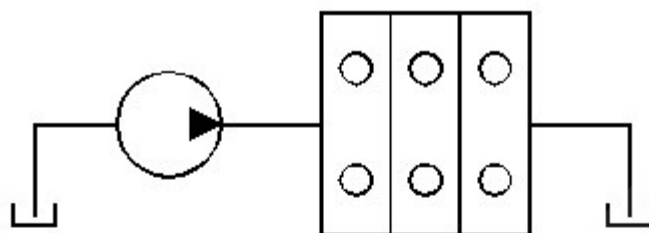
V20 Circuito Centro Cerrado



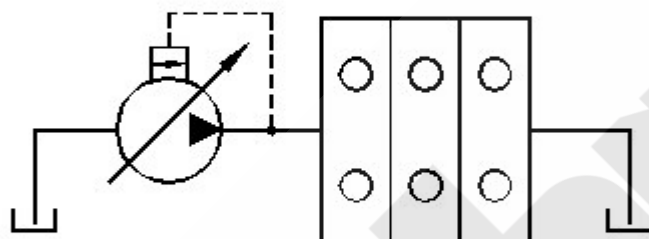
4 – Vias Cilindro

V20 Circuito - Load Sense

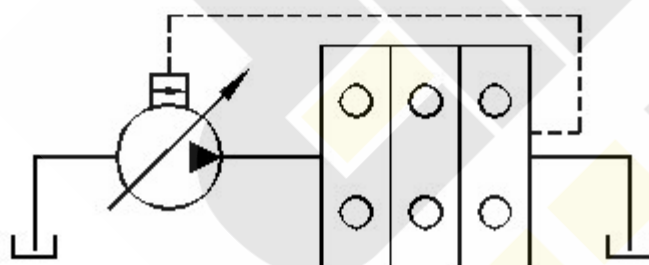




Conexión Centro Abierto



Conexión Centro Cerrado



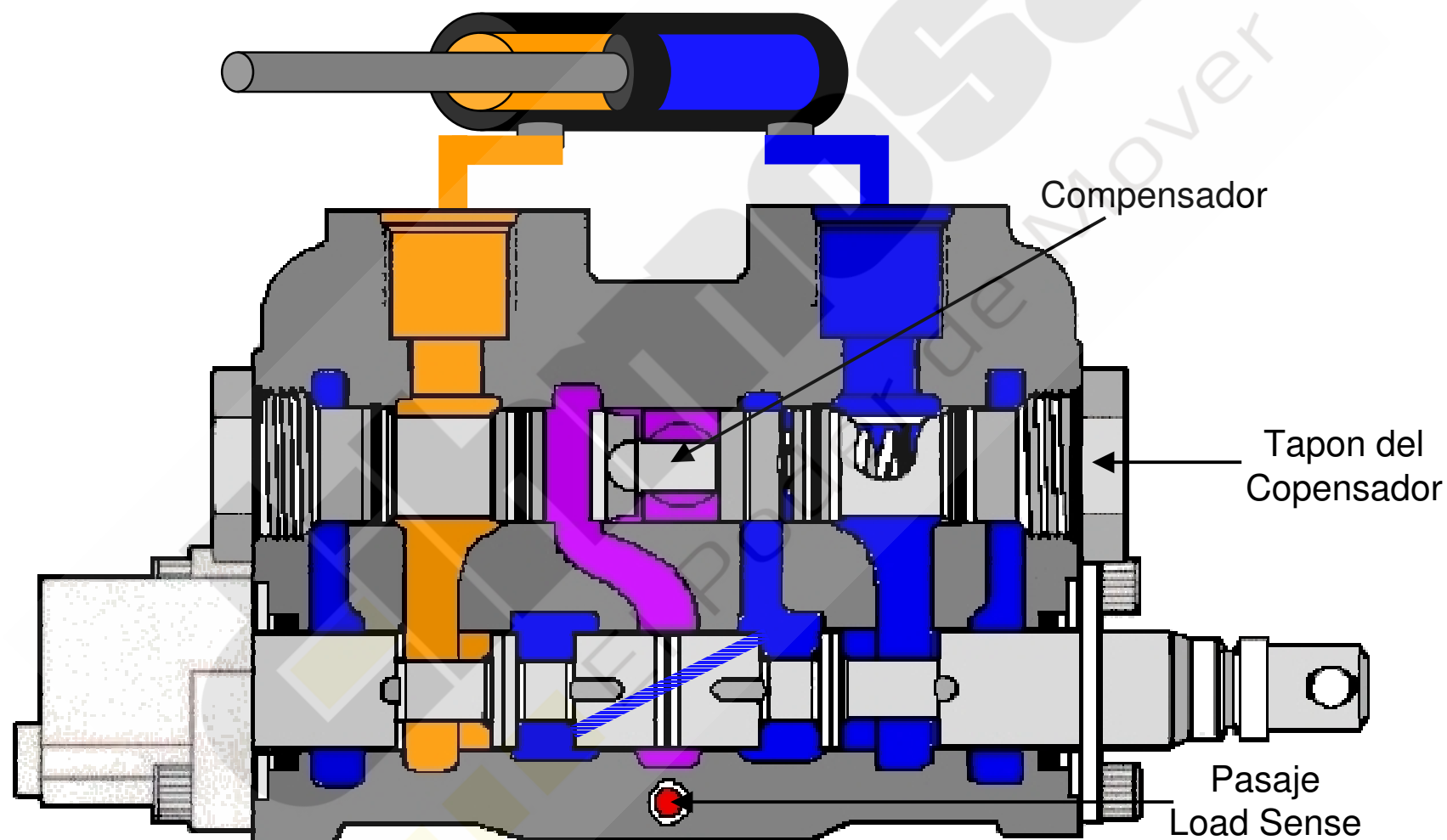
Conexión Load Sense

V20 Compensada por Presión

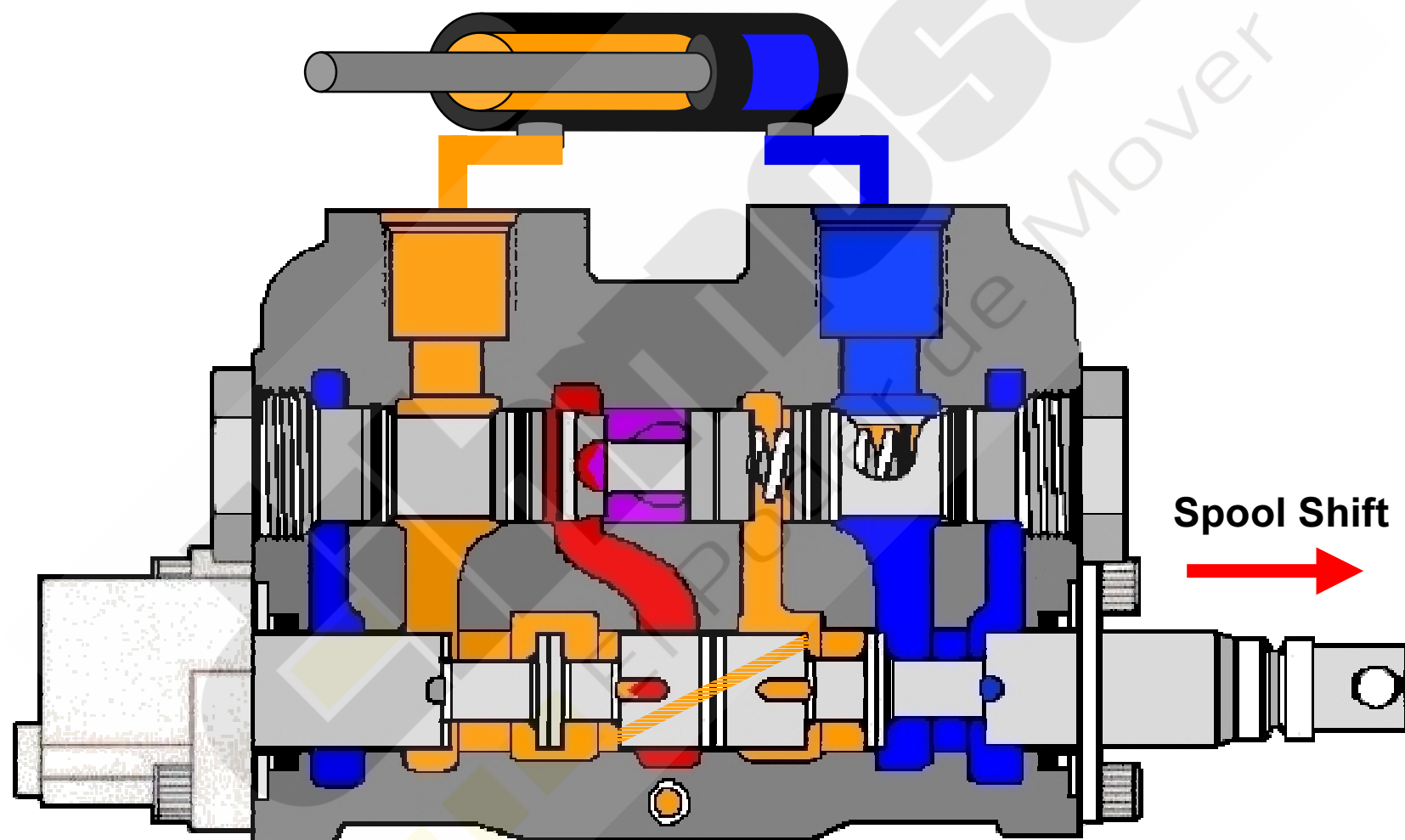
Características:

- Secciones Compensadas Individualmente
- Spools (carretes) de 5, 10, 15, gpm, (otros esp. disponibles)
- Mantiene el Flujo Especificado +/- 10%
- Mantiene el Flujo Especificado con el Spool totalmente accionado
- Spool de 4-vias, y Flujo libre

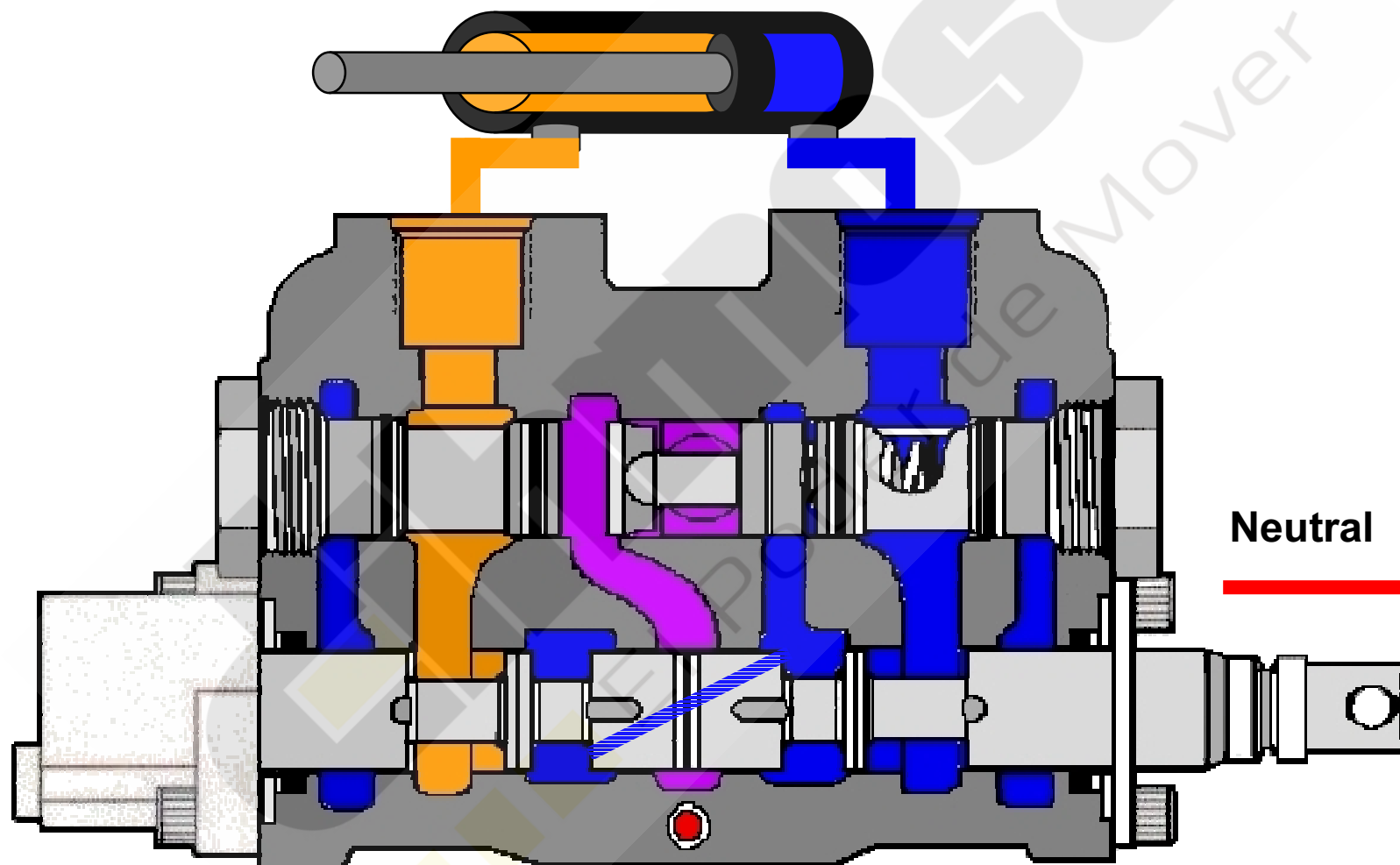
V20 Sección Compensada por Presión



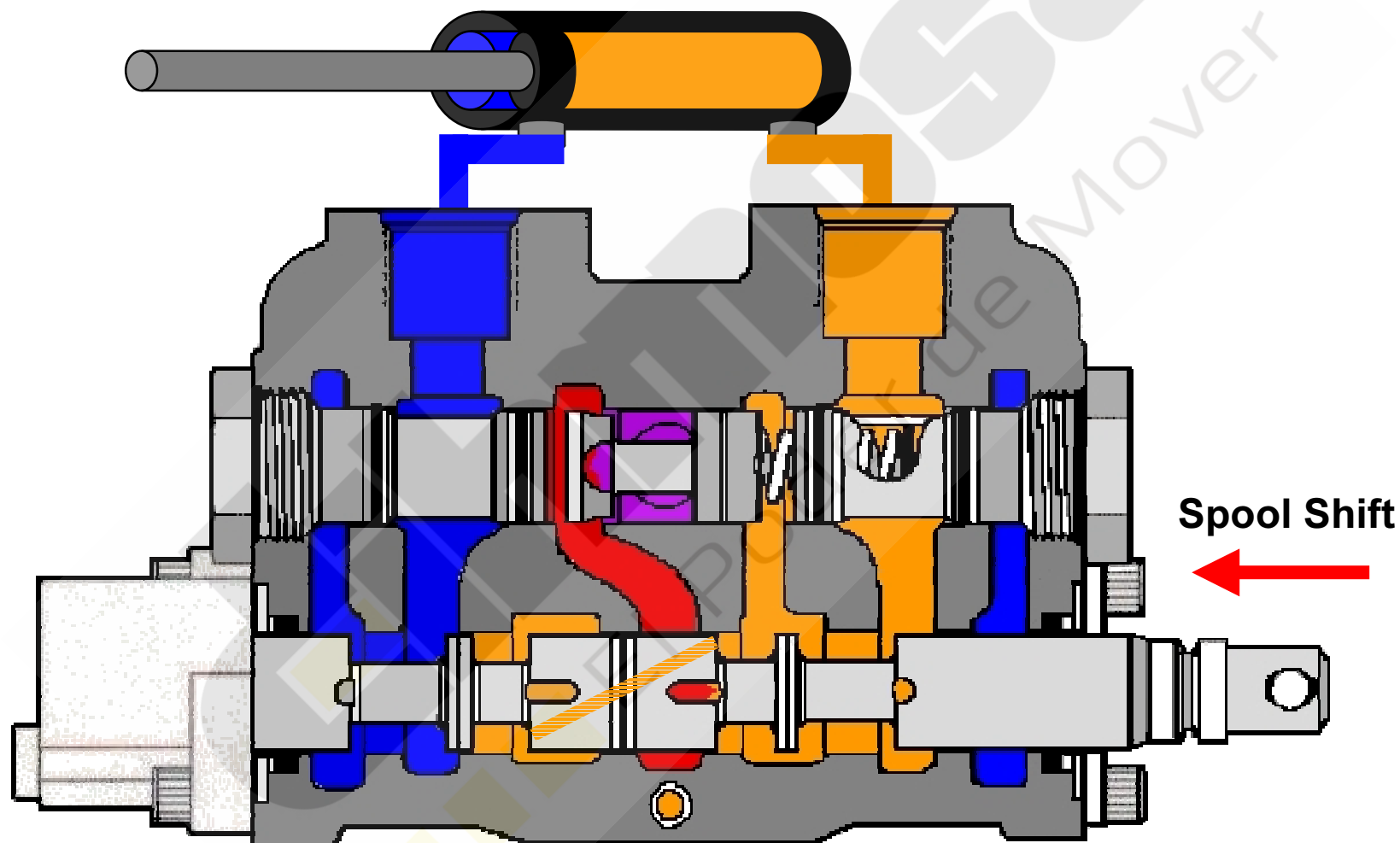
V20 Sección Compensada por Presión



V20 Sección Compensada por Presión



V20 Sección Compensada por Presión

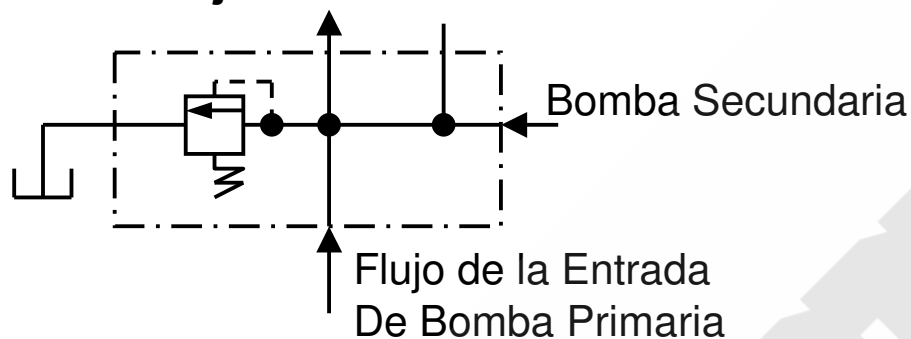


Model V20

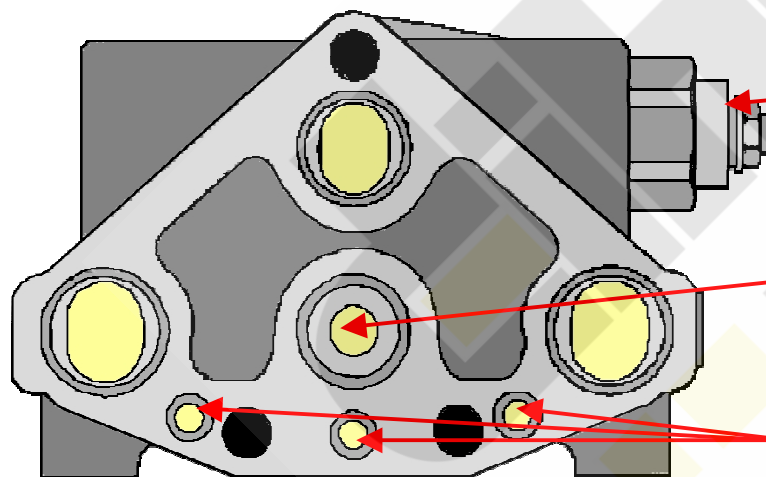
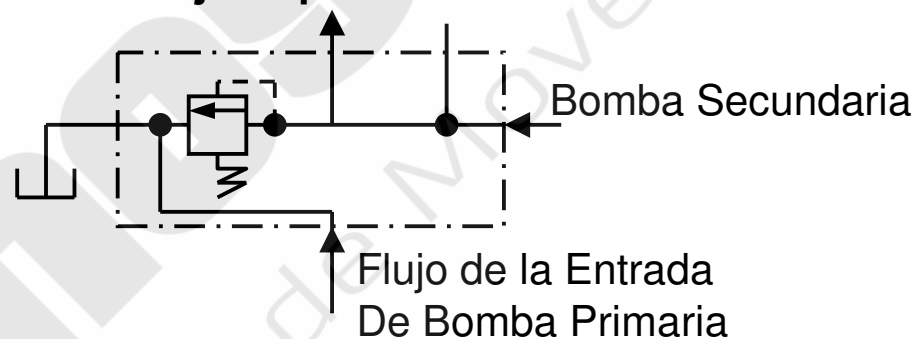
- Mid-Inlets
- Outlets
- Pilot Generation

Sección Media de Entrada, Flujo combinado y Separado

Flujo Combinado



Flujo Separado



Valvula de Alivio

Tapon Instalado para opciones de Flujo Separado

(Opcionales) Permiten el paso del Piloto para solenoides y señales para el Load Sense a través de la Sección.

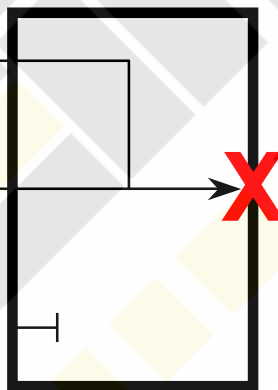
Salidas

Retorno



Tanque

P. Paralelo



Convertible



Power
Beyond



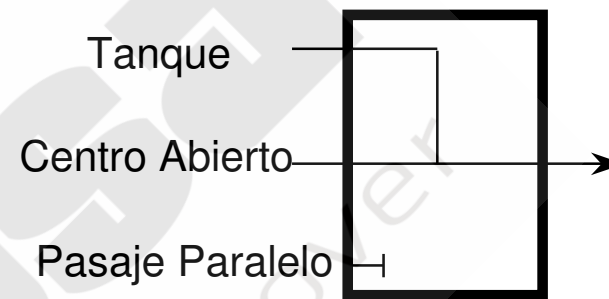
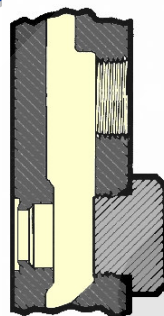
Centro
Cerrado



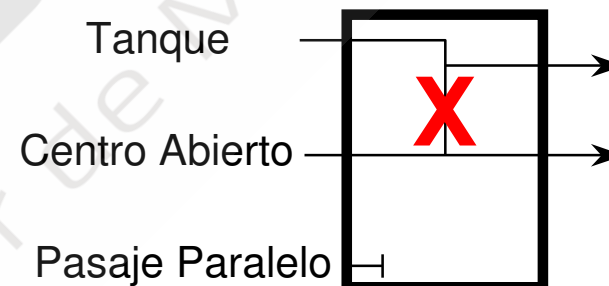
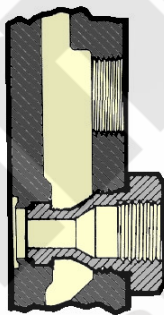
Tapon

Salida - Convertible

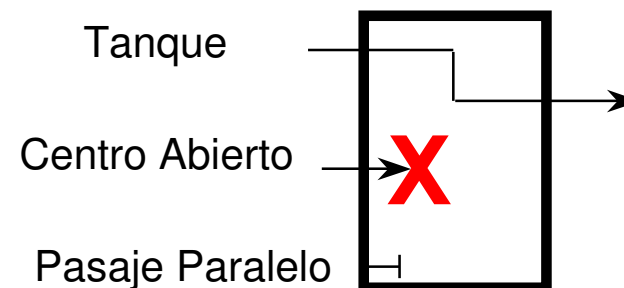
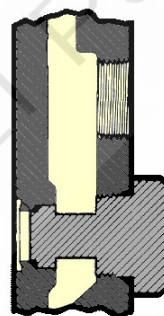
Centro
Abierto



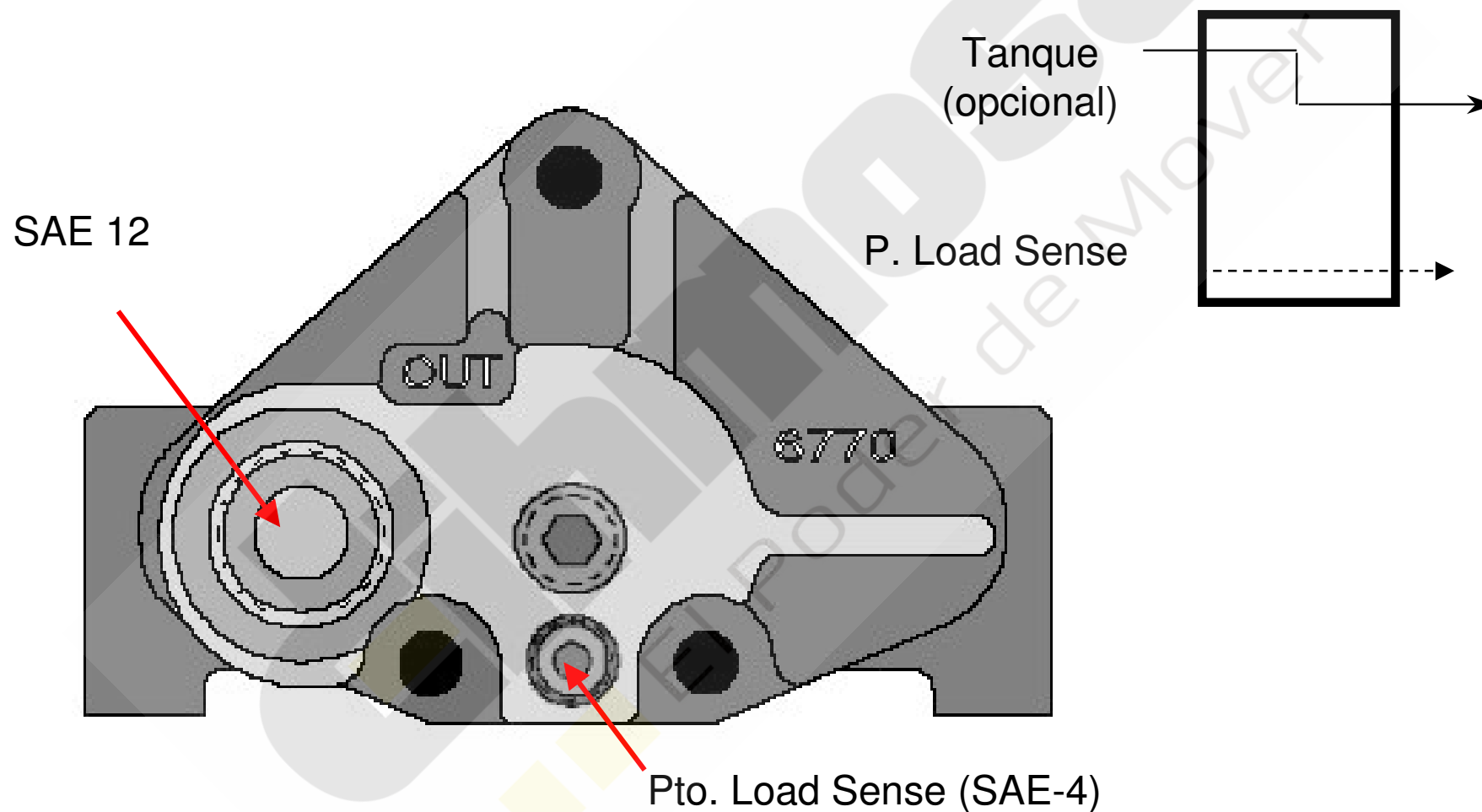
Power Beyond



Centro Cerrado



Salida - Load Sense



Aplicaciones

Aplicaciones

Montacarga:

- V20 3-spool
- Levante, Corredera, Empuje
- Restrictores en Ptos de Trabajo



Aplicaciones

Crawler Dozer

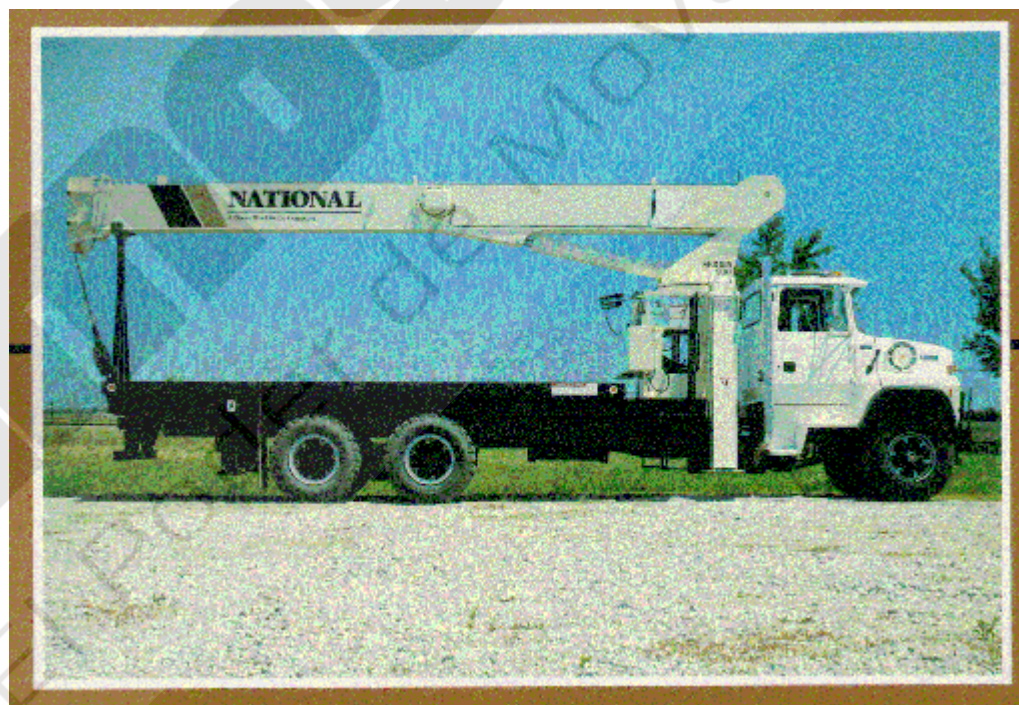
- V20 3 & 4 spool
- Levantar, Empujar, Angulo.
- Punto Flotante en Levantar



Aplicaciones

Gruas

- V20 6-Spool
- Levantar, Tele, Rotar, Winch



Aplicaciones

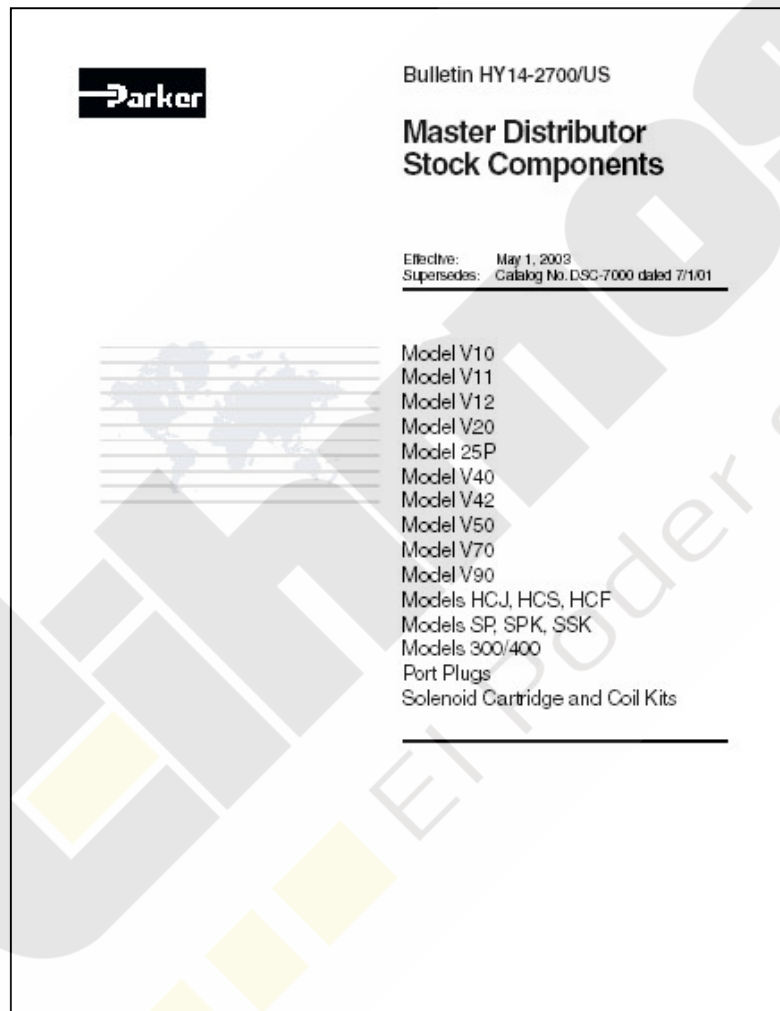
Escarvadoras



Perforadora



Como Seleccionar Componentes...






V20 INLET COVERS (Housing No.'s 8398 & 7736)

Item No.	Model Number	Part Number	End Inlet	End Outlet	Top Inlet	Top Outlet	3/4" NPT Ports (75)	SAE 12 Ports (RSPI)	(7736 Only) With 5-25 GPM Flow Control (FC)
1	20-LC-75	8650030	•	•	•	•	•	•	
2	20-LC-12	8650029	•	•	•	•	•	•	
3	20-LC-12-FC	8650028	•	•	•	•	•	•	•

All the above inlet covers are machined to accept the main relief cartridges listed below.
Two port plugs are furnished loose with each cover, one is machined for 1/4" NPT gauge port.
Excess flow plug is furnished with all 7736 housings.

V20 Main Relief Options

All set at "crack" pressure of 1 GPM.



Model WH
Relief Valve Cartridge



Model RP51
Relief Valve Cartridge

Item No.	Model Number	Part Number	Pressure Range and Setting					
			500-1240 Set @ 1200 PSI c/p	1250-1740 Set @ 1740 PSI c/p	1750-1999 Set @ 1950 PSI c/p	2000-2599 Set @ 2550 PSI c/p	500-3500 Set @ 3000 PSI c/p	
1	WH-1200	8650417	•					
2	WH-1700	8650418		•				
3	WH-1950	8650419			•			
4	WH-2550	8650420				•		
5	RP51A-3000 ♦	8650421					•	
6	K-20-NR	8650382						Relief Plug Kit (NR Option)

All above Relief Valves have stainless steel springs.
WH Relief Valves are internal shim adjustable.
♦ RP51A Relief Valves are external screw adjustable.

V20 OUTLET COVERS For Open Center (Housing No.'s 6770 & 8644)

Item No.	Model Number	Part Number	SAE 10 Ports (10)	SAE 12 Ports (12)	3/4" NPT Ports (75)	Hsg. 6770 End Outlet (E)	Hsg. 8644 Top Outlet (T)	Solenoid Pilot C-Bore Machined (P)	Machined for End Power Beyond (6770 Only) (MY)	Machined for Top Power Beyond (8644 Only) (MY)	Includes 12 VDC Pressure Control Cartridge (SOL-12)	Includes 24 VDC Pressure Control Cartridge (SOL-24)
1	20-RC-10-E	13650145	•			•						
2	20-RC-12-E	13650146		•		•						
3	20-RC-75-E	13650147			•	•						
4	20-RC-12-E-MY	8650024		•		•			•			
5	20-RC-12-E-MY-P ^①	26157054		•		•		•	•			
6	20-RC-75-E-MY	8650027			•	•			•			
7	20-RC-12-ET-12-MY ^②	8650022		•		•	•			•		
8	20-RC-75-ET-75-MY ^②	8650023			•	•	•			•		
9	20-RC-12-E-SOL-12 ^③	8650026		•		•					•	
10	20-RC-12-E-SOL-24 ^③	13650307		•		•						•

① 8644 covers are supplied with the internal power beyond conversion plug installed. Plugging the top power beyond port will convert the valve to closed center with the internal plug installed.

② (SOL) covers are used in the downstream (V20) valve if a power beyond sleeve is used in the utility section of a solenoid upstream valve.

③ The Solenoid Pilot C-bore machined, designation letter [P], indicates that the pilot seal counterbores have been machined into the upstream side of the right end cover. This outlet cover must be used in V20 valve assemblies when having a solenoid work section next to the outlet cover (i.e. using an upstream Unloading Utility Section).



8644 Right Cover



Right Cover with Pressure Control Cartridge



6770 Right Cover



V20R 'PARALLEL' WORK SECTIONS (Housing No. 10954) Manually-Operated

Item No.	Model Number	Part Number	3-Way 3-Pos. [3] [4]	4-Way 4-Pos. [4] [5] [6] [7]	SAE 10 Ports [10]	SAE 12 Ports [12]	Sprint Return to Neutral [R]	Knock Out [K04]	'R' Type Defect [R]
1	20T-10-03	13650851	*	*	*	*	*	*	*
2	20T-10-03	13650906	*	*	*	*	*	*	*
3	20T-10-R3	13650852	*	*	*	*	*	*	*
4	20T-12-R3	13650853	*	*	*	*	*	*	*
5	20T-10-04	8650008	*	*	*	*	*	*	*
6	20T-10-K4	13650854	*	*	*	*	*	*	*
7	20T-10-K04-2U0	13650917	*	*	*	*	*	*	*
8	20T-10-04-P10T	13650943	*	*	*	*	*	*	*
9	20T-10-F4	26157027	*	*	*	*	*	*	*

© The 'P10T' code designates that the internal through-passages have been machined for use when intermixing solenoid and manual work sections.
© The 'K04' code designates that the internal through-passages have been machined for use when intermixing solenoid and manual work sections.
© The 'K04' code designates that the internal through-passages have been machined for use when intermixing solenoid and manual work sections.
© The 'K04' code designates that the internal through-passages have been machined for use when intermixing solenoid and manual work sections.



V20T 'TANDEM' WORK SECTIONS (Housing No. 10762) Manually-Operated

Item No.	Model Number	Part Number	3-Way 3-Pos. [3] [4]	4-Way 4-Pos. [4] [5] [6] [7]	SAE 10 Ports [10]	SAE 12 Ports [12]	Sprint Return to Neutral [R]	Knock Out [K04]	'R' Type Defect [R]
1	20T-10-03	13650851	*	*	*	*	*	*	*
2	20T-10-03	13650906	*	*	*	*	*	*	*
3	20T-10-F3	13650852	*	*	*	*	*	*	*
4	20T-12-F3	13650853	*	*	*	*	*	*	*
5	20T-10-04	8650008	*	*	*	*	*	*	*
6	20T-10-K4	13650854	*	*	*	*	*	*	*
7	20T-10-K04-2U0	13650917	*	*	*	*	*	*	*
8	20T-10-04-P10T	13650943	*	*	*	*	*	*	*
9	20T-10-F4	26157027	*	*	*	*	*	*	*

© The 'P10T' code designates that the internal through-passages have been machined for use when intermixing solenoid and manual work sections.



V20S 'SERIES' WORK SECTIONS (Housing No. 11483) Manually-Operated

Item No.	Model Number	Part Number	3-Way 3-Pos. [3] [4]	4-Way 4-Pos. [4] [5] [6] [7]	SAE 10 Ports [10]	SAE 12 Ports [12]	Sprint Return to Neutral [R]	Knock Out [K04]	'R' Type Defect [R]
1	20S-10-04	8510077	*	*	*	*	*	*	*
2	20S-10-F4	13650852	*	*	*	*	*	*	*
3	20S-10-K4	8510081	*	*	*	*	*	*	*

© The 'P10T' code designates that the internal through-passages have been machined for use when intermixing solenoid and manual work sections.

V20

V20 Handle End Options

Handle Kits Contain Necessary Links and Pins.

Item No.	Model Number	Part Number	Description
1	K-20-VH-B	8591103	Vertical Handle (Black)
2	K-20-VH-P	8591103	Vertical Handle (Paint)
3	K-20-HH-B	8591154	Horizontal Handle (Black)
4	K-20-HH-P	8591156	Horizontal Handle (Paint)
5	K-20-RET	8591107	Standard Seal Retainer Pin
6	K-20-RET-HD	8591108	Heavy Duty Seal Retainer
7	K-20-HYPER	8592707	Sec. Spool Mount
8	K-20-HBO-G	8591113	Complete Bracket (Paint) w/ Sec. Handle and Links
9	K-20-ECOT	8591112	Spool Mount Assembly



Vertical Handle Assemblies



Horizontal Handle Assemblies

V20 Mechanical Jockeylocks

Includes the Spool Adapter Chime.

Item No.	Model Number	Part Number	Description
1	MJAS-20L-M	1355938	V20 Mechanical Jockeylock, Left Hand Kit
2	MJAS-20R-M	1355939	V20 Mechanical Jockeylock, Right Hand Kit
3	K-20-MJ-L	2615720	V20 Mechanical Jockeylock, Left Hand Kit
4	K-20-MJ-R	2615720	V20 Mechanical Jockeylock, Right Hand Kit

V20 Standard Section Stud Assembly Kits

Includes Section Studs and Pins. (Stud Kits DO NOT include 2 1/8" OD 1/4" Load Sensing and Solenoid Pilot Passage Section Studs. These studs must be purchased separately if required.)

Item No.	Model Number	Part Number	Description
1	K-20-1	8592717	One Section
2	K-20-2	8592718	Two Section
3	K-20-3	8592719	Three Section
4	K-20-4	8592720	Four Section
5	K-20-5	8592721	Five Section
6	K-20-6	8592722	Six Section
7	K-20-7	8592723	Seven Section
8	K-20-8	8592724	Eight Section
9	K-20-9	8592725	Nine Section
10	K-20-10	8592726	Ten Section
11	K-20-SECT-BEAL	13559405	Section seal for load sensing and/or solenoid pilot passages. When using the Seal Kit, one seal kit section is required in addition to the main seal kit. (Seal kit includes 25 pieces of seal kit seal 1/8" x 1/4" x 1/8").



Stud Assembly Kit

LOF parting available on many items — Consult factory

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Gracias