



Bulletin HY14-2103/US

Series MV3 Midget Directional Control Valves

Effective: February 1, 2004
Supersedes: Cat. No. PMF 1002 dated 10/99

Features

- Superior versatility
- Both open and closed center configurations
- Excellent metering characteristics
- Inlet load drop checks
- Optional high flow inlets (low ΔP)
- Fourth position float
- Combinable with Parker Mini-Pak solenoid operated directional control valves
- Power beyond feature

Description

The Parker Series MV3 Midget Directional Control Valves provide multiple-function directional control in series, parallel and series-parallel circuits. Proven for more than 30 years in thousands of mobile and industrial hydraulic systems, these Parker Midget Valves are modular in design and can be assembled in a wide variety of circuit configurations.

Specifications

Operating Pressure: 3000 PSI (207 Bar) maximum.

Power Beyond Pressure Capability: 3000 PSI (207 Bar).

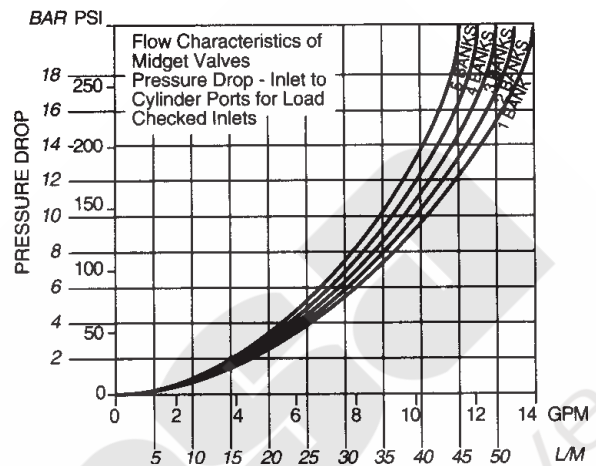
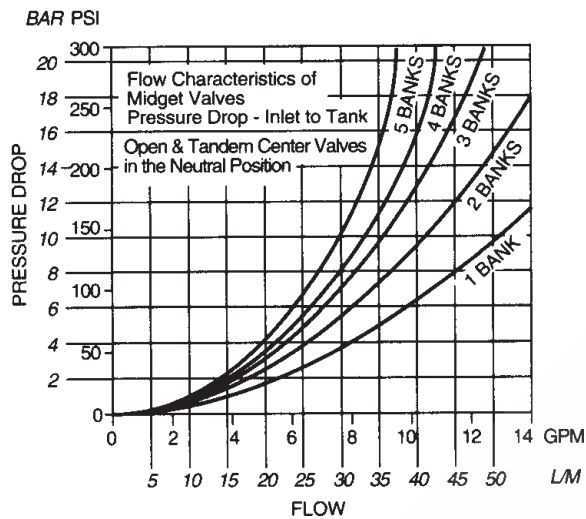
Operating Fluid: Standard petroleum-based.

Leakage C-T at 3000 PSI (207 Bar): 5.4 in³/min. (88.5 cc/min.) at 100°F (38°C), 150 SSU (32 cSt).

Handle Pull Force at 3000 PSI (207 Bar): 15 lbs. (66.6 N) maximum, spring centered or detent.

Filtration Requirement: Recommend 25 micron (nominal). Class 18/15 according to ISO 4406, or cleaner.

PERFORMANCE



NOTE: SAE 10 oil at 100°F (38°C), Viscosity 150 SSU (32 cSt)

MATERIALS

Construction: Hard chrome-plated precision spool, high-strength alloy cast iron body, standard Buna "N" seals.

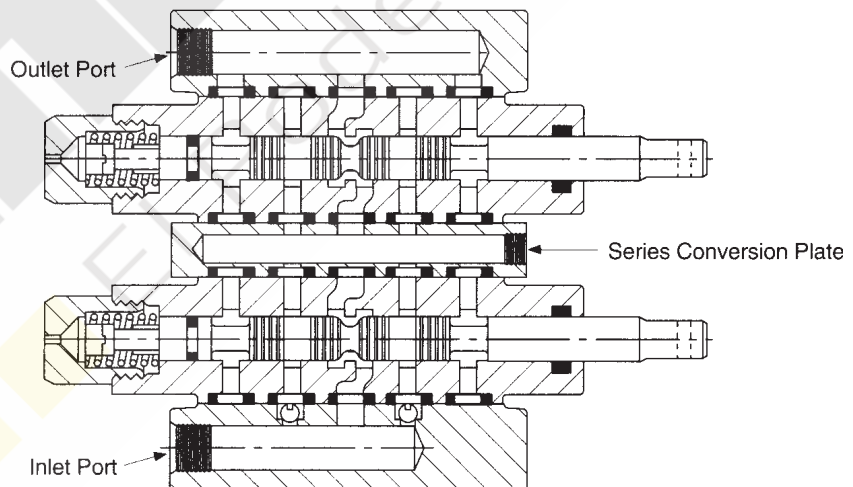
Porting: SAE-6 (9/16" x 18 thread)

Stacking Limitation:

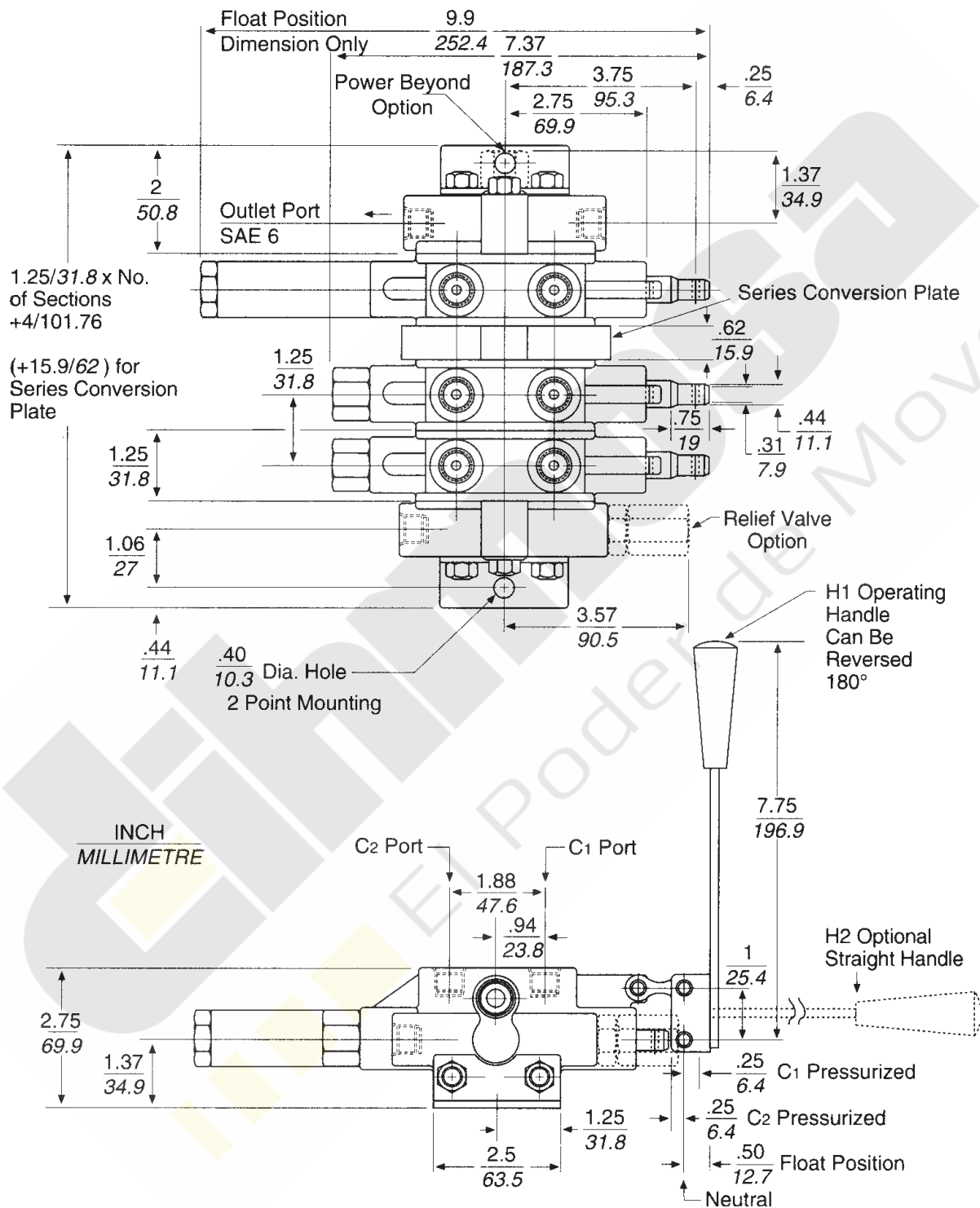
Recommended to 5 sections at maximum rated flow and pressure. For additional sections consult factory.

Tie Rod Torque Specification: 115-125 lb. in. (13.0-14.1 N-m)

Shipping Weight Per Section: 6 lbs. (2.7 kg) approx.



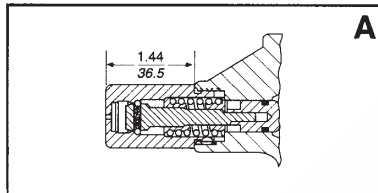
DIMENSIONS



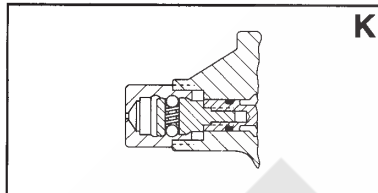
DIMENSIONS ARE IN INCHES (MILLIMETERS) AND ARE FOR REFERENCE ONLY.

OPTIONS

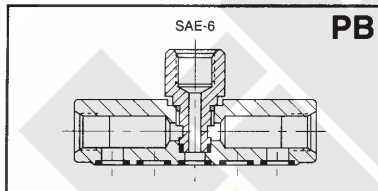
- Spring-centered or detented spools in any combination.
- Integral, adjustable inlet relief valve.
- Priority inlet with direct-acting relief valve; available in 50 - 3,000 psi (3.5 - 207 BAR).
- Power beyond outlet sections.
- Electric limit switches for DC power unit switching with 1/4" (6.35 mm) spade connectors.
- Open center series conversion.
- Closed center parallel circuit stack conversion.



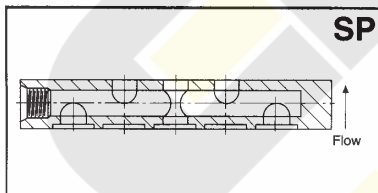
A
Spring Center/Detent Position Cap



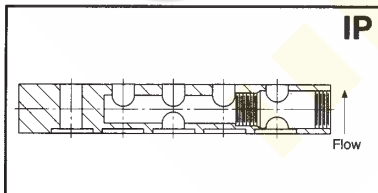
K
2K, 2-Position Detented Cap
3K, 3-Position Detented Cap



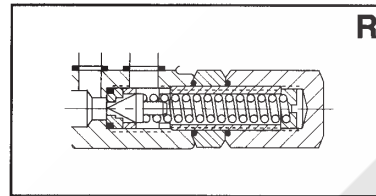
PB
Power Beyond Outlet Section



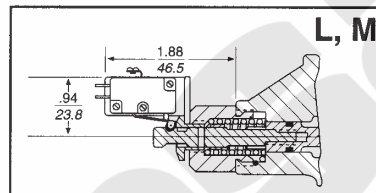
SP
Series Conversion Plate



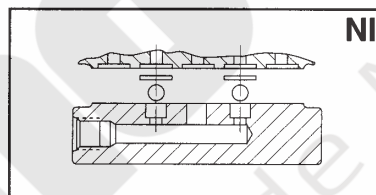
IP
Isolator Plate



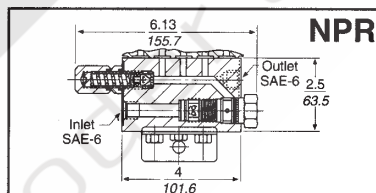
R
Direct Acting Relief Valve
Adjustable in 2 Pressure Ranges
50-500/500-3000 psi
(3.5-35/35-207 BAR)



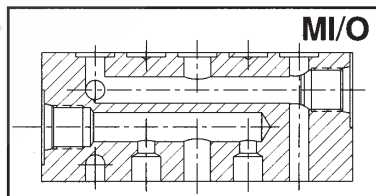
L, M
Electric Limit Switch on Spool Cap
1/4" (6.35 mm) Spade Adaptors
L - 3 position
M - 2 position



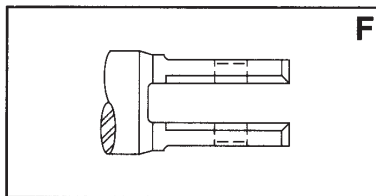
NI
Load Drop Checks



NPR
Priority Inlet with Direct Acting Relief
Adjustable in 2 Pressure Ranges
50-500/500-3000 psi
(3.5-35/35-207 BAR)

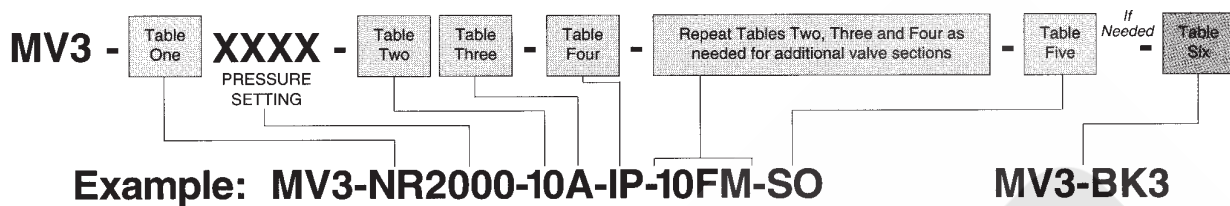


MI/O
Mid Inlet/Outlet



F
Forked End Spool

ORDER CODE



INLET OPTIONS	TABLE ONE	
	NI	Inlet w/Load Checks
	NRI	Reverse Ported Inlet w/Load Checks
	NDIP	Dual Ported Inlets w/Load Checks
	NR	Inlet w/Load Checks and Adjustable Direct Acting Relief
	NPR	Inlet w/Load Checks Priority Flow and Direct Acting Relief
Specify pressure setting on NR Specify pressure and flow on NPR		

SPOOL CONFIGURATION	TABLE TWO	
	10	3 position 4 way N/C (C1 and C2 Blocked)
	14	3 position 4 way Motor (C1 and C2 Open to Tank)
	17	3 position 3 way (C2 Blocked)
	20	2 position 4 way N/C (C1 and C2 Blocked)
	34	4 position 4 way (Float) (C1 and C2 Blocked)
	35	Tool Priority Selector (Must be used with IP plate)

SPOOL OPTIONS	TABLE THREE	
	A	Detented (Spool In) Spring Centered
	B	Detented (Spool Out) Spring Centered
	F	Forked End Spool
	K	Detented In Both Operating Positions
	L	Micro-Switch Operated in 3 Positions
	M	Micro-Switch Operated in 2 Positions
	FM	Fine Metering available on #10 and #14 spools only. Designed to give the operator some touch and Feel (As a Meter-Out device it is not recommended to be used with load holding valves.)

CONVERSION PLATES	TABLE FOUR	
	SP	Series Conversion Plate (Not to be used w/Inlet relief)
	IP	Isolator Plate

ACCESSORIES

Handle Kits order separately

MV3-H1	Right Angle handle
MV3-H2	Straight handle

OUTLET OPTIONS	TABLE FIVE	
	SO	Standard Outlet (Open Circuit)
	SC	Standard Outlet (Closed Circuit)
	PB-	Power beyond (Open Circuit)
	DTO	Dual tank Outlet (Open Circuit)
	DTC	Dual tank Outlet (Closed circuit)
	NO	Standard Outlet w/reverse check (Open Circuit only)

BANKING KITS	TABLE SIX	
	MV3-	Banking Kits consist of 3 fatigue proof steel tie rods, 6 hex nuts, 6 washers, 2 foot brackets. Tie rods are sized to accept an Inlet/Outlet and then the number spool sections and/or conversion plates required.
	BK1	1 spool section+inlet/outlet
	BK2	2 spool section+inlet/outlet
	BK3	3 spool section+inlet/outlet
	BK4	4 spool section+inlet/outlet
	BK5	5 spool section+inlet/outlet
Please consult factory when stacking more than 5 sections.		

Please Note: Mylar shims and "O" rings are shipped with each valve section.

HOW TO ORDER: Parker Mini-Pak Valves are coded by the assembled stack configuration (Left to Right) in a sequential order from inlet to outlet. Please refer to the ordering tables, to select a circuit type, inlet options, spool configuration, spool options, circuit conversion options as they apply to your application.

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3. Delivery: Unless otherwise provided on the face hereof, delivery shall be made F.O.B. Seller's plant. Regardless of the method of delivery, however, risk of loss shall pass to Buyer upon Seller's delivery to a carrier. Any delivery dates shown are approximate only and Seller shall have no liability for any delays in delivery.

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8. Buyer's Property: Any designs, tools, patterns, materials, drawings, confidential information or equipment furnished by Buyer or any other items which become Buyer's property, may be considered obsolete and may be destroyed by Seller after two (2) consecutive years have elapsed without Buyer placing an order for the items which are manufactured using such property. Seller shall not be responsible for any loss or damage to such property while it is in Seller's possession or control.

9. Taxes: Unless otherwise indicated on the face hereof, all prices and charges are exclusive of excise, sales, use, property, occupational or like taxes which may be imposed by any taxing authority upon the manufacture, sale or delivery of the items sold hereunder. If any such taxes must be paid by Seller or if Seller is liable for the collection of such tax, the amount thereof shall be in addition to the amounts for the items sold. Buyer agrees to pay all such taxes or to reimburse Seller therefore upon receipt of its invoice. If Buyer claims exemption from any sales, use or other tax imposed by any taxing authority, Buyer shall save Seller harmless from and against any such tax, together with any interest or penalties thereon which may be assessed if the items are held to be taxable.

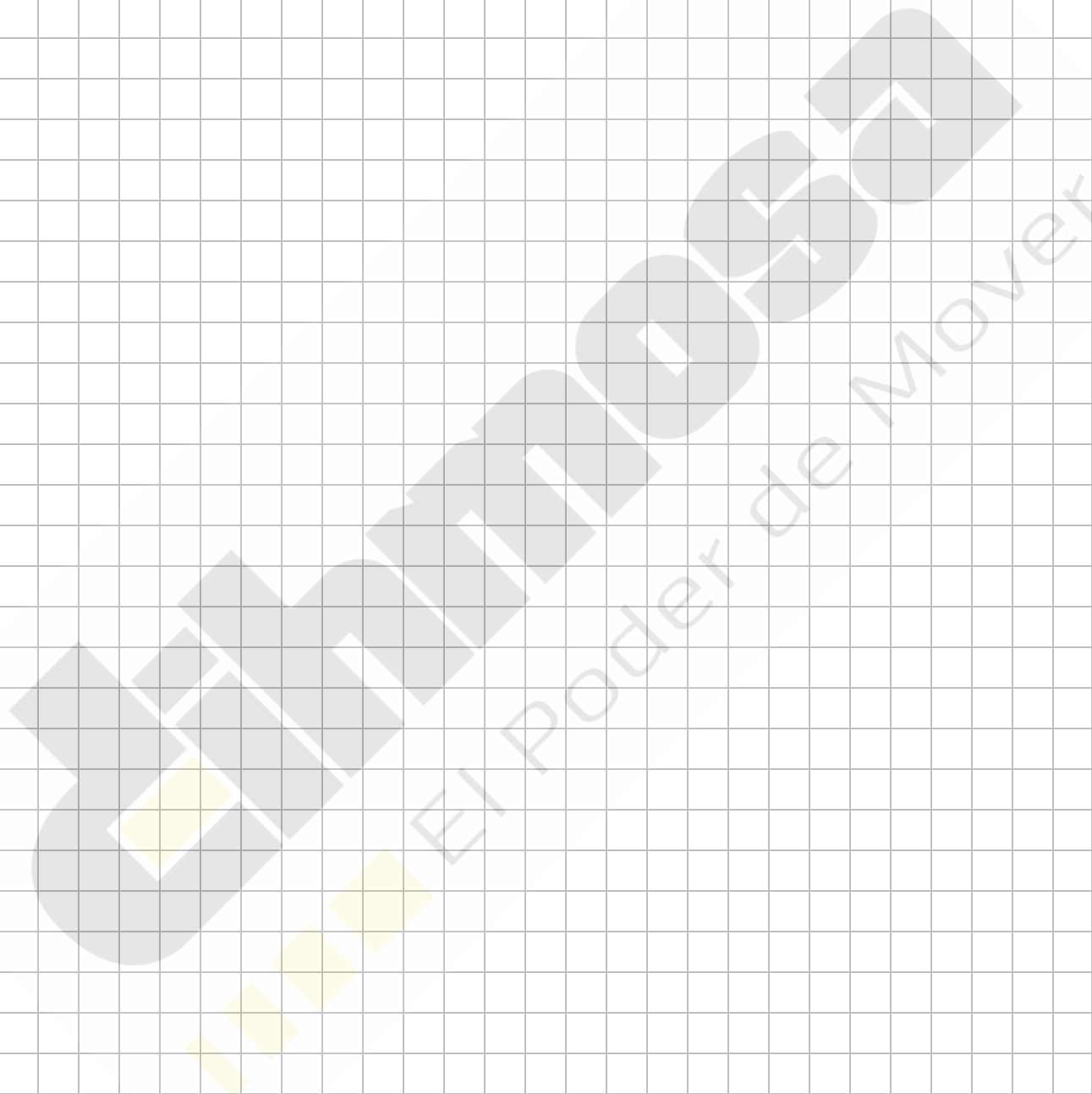
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12. Entire Agreement/Governing Law: The terms and conditions set forth herein, together with any amendments, modifications and any different terms or conditions expressly accepted by Seller in writing, shall constitute the entire Agreement concerning the items sold, and there are no oral or other representations or agreements which pertain thereto. This Agreement shall be governed in all respects by the law of the State of Ohio. No actions arising out of the sale of the items sold hereunder or this Agreement may be brought by either party more than two (2) years after the cause of action accrues.

9/91-P

Notes





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3C, 2/04, PHD