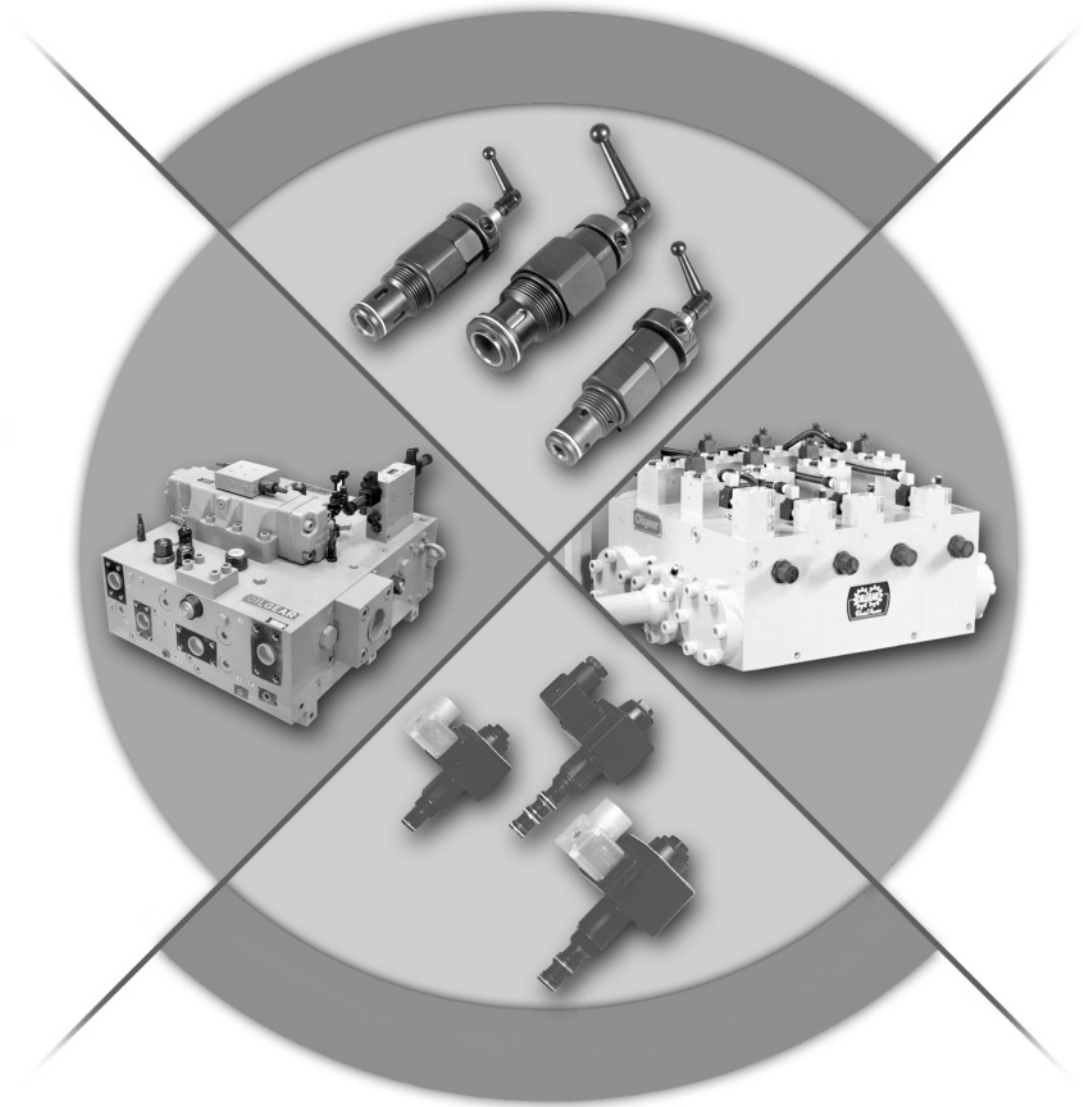


Oilgear

SCREW-IN CARTRIDGE VALVE REFERENCE GUIDE



CARTRIDGE VALVES

This complete Oilgear line of standard, as well as special function, cartridge valves is unmatched in performance, pressures and flow range, and provides custom design flexibility at standard hydraulic valve prices.

The cartridge valve concept is the modern approach to hydraulics and is utilized in more installations as hydraulic engineers become aware of its design flexibility, excellent performance and substantial savings.

Multiple valve sizes and functions are available for selection to exactly meet your system's design requirements for flow, pressure and/or poppet logic operation.

Available In-Line Mounting Blocks or Integrated Manifolds

Individual cartridges are available in compact line mounting blocks designed for installation in your system's piping. The savings in cost (versus conventional valves), handling, assembly time and simplified piping is dramatic.

A partial or entire hydraulic system can be integrated into a single manifold. Cartridges of different sizes can be conveniently installed in the same manifold to reduce the cost of piping and installation; reduce space requirements; reduce engineering and design costs.

SCREW-IN CARTRIDGE VALVES

Five Different Valve Sizes

There are five different valve sizes to exactly match each design requirement. As much fluid as needed can flow to each function with no concern of high pressure drops, high energy usage, or high purchase costs.

Flows to Over 300 gpm

The variety and type of valves and the size of flows and pressure are extensive. Flows are from less than 1 gpm to more than 300 gpm. Pressures are to 5000 psi.

60 Basic Functions Available

The Oilgear screw-in cartridge valve line is one of the most complete in the industry. There are 60 basic functions available with hundreds of specific selectable specifications.

Pilot Control Modules Increase the Design Flexibility

In addition to single pressures, these screw-in cartridge valves can be multifunctional using a pilot logic concept. A pilot control module can provide pressure adjustment, multiple pressures, vent, or proportional adjustments for the main valve.

Precision Manufactured

This quality line of screw-in cartridge valves is manufactured on precision machinery. Components are heat treated and honed as required. This steel-on-steel type construction assures high performance and permits use with all standard petroleum, synthetic or high water content fluids (HWCF).

Minimize Downtime

Most importantly, these valves are screw-in replaceable/serviceable cartridge valves that are field serviceable with standard tools.

Dirt in the system is the most common cause of valve malfunction. If a problem should occur, simply unscrew the cartridge, screw in a replacement and the equipment can be in production in minutes.

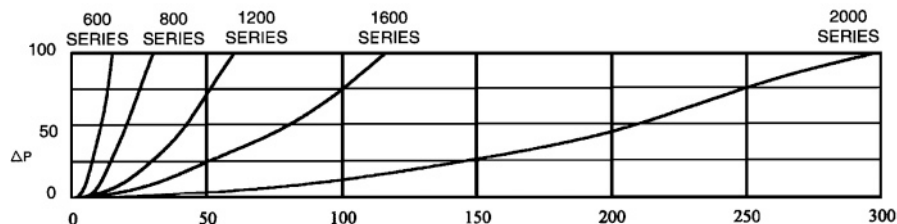
Oilgear cartridge valves are field serviceable. A malfunctioning valve can be flushed out and immediately reinstalled, or taken apart, cleaned, reassembled and placed back in service. If needed, parts can be replaced in the field.



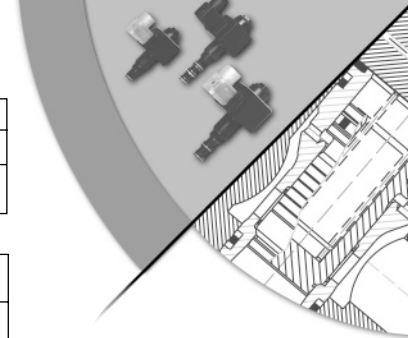
Oilgear's standard line of replaceable cartridge valves includes units stocked for immediate shipment as well as established units which are manufactured to order.

These cartridge valves are backed by the experience Oilgear has gained since 1921 in matching fluid power systems to a tremendous variety of machines and applications all over the world.

Oilgear has the interest, ability and the desire to help solve any special hydraulic need and will custom design special valves and manifolds in low quantities, competitively priced to exactly meet any specifications.



Pressure Drop vs. Flow in USGPM for Typical Cartridges. See Individual Data Sheets for Actual Specifications.



Oilgear Cartridge Valves

DESCRIPTION OF VALVE FUNCTION	MODEL PREFIX	MODEL SERIES				
		600	800	1200	1600	2000
		NOMINAL FLOW U.S. GPM (L/MIN.)				

POPPET (LOGIC) & CHECK

	Poppet (Logic), N.C.	HSP	—	30 (114)	50 (190)	100 (379)	230 (872)
	Poppet (Logic), N.O.	HSPO	—	—	—	—	230 (872)
	Check, Plain	HSC	15 (57)	35 (133)	50 (190)	90 (341)	235 (891)
	Check, Pilot Operated	HSPC	—	22 (83)	65 (246)	120 (455)	—
	Check, Shuttle	HSSCV	3 (11,4)	20 (76)	—	—	—

DIRECTIONAL CONTROL

	Directional, 2-Way	HS2SV	4 (15)	—	—	—	—
	Directional, 3-Way	HS3SV	2.5 (9,5)	—	—	—	—
	Directional, 4-Way	HS4SV	3 (11,4)	—	—	—	—
	Directional, 2-Way Single Pilot	HS2W-SP	—	17 (64)	35 (133)	80 (303)	175 (663)
	Directional, 2-Way Dual Pilot	HS2W-DP	—	17 (64)	35 (133)	80 (303)	175 (663)
	Directional, 3-Way Single & Dual Pilot	HS3W	—	10 (38)	—	—	—
	Directional, 3-Way Lever Operated	HS3W-90	—	27 (102)	—	—	—

PRESSURE CONTROL

	Relief, Direct Acting	HSLR	2.5 (9,5)	—	—	—	—
	Relief, Direct & Piloted	HSR-P	10 (38)	35 (133)	35 (132)	—	—
	For Pilot Oper. Ventable w/PCM	HSR	—	—	62 (235)	112 (425)	220 (834)
	Relief, Differential Pressure	HSDPR	1 (4)	—	—	—	—
	Relief, Accumulator Unloading	HSAUR	0.2 (0,8)	—	—	—	—
	Sequence, N.C. Direct Acting	HSU-DA	—	—	39 (148)	—	—
	For Pilot Oper.	HSU	—	16 (61)	39 (140)	84 (318)	170 (644)
	Sequence, N.O. Direct Acting	HSUO-DA	—	—	39 (148)	—	—
	For Pilot Oper.	HSUO	—	17.5 (66)	37 (140)	84 (318)	170 (644)

DESCRIPTION OF VALVE FUNCTION	MODEL PREFIX	MODEL SERIES				
		600	800	1200	1600	2000
		NOMINAL FLOW U.S. GPM (L/MIN.)				

PRESSURE CONTROL

	Sequence Piloted	HSS-P	—	41 (155)	—	—	—
	For Pilot Oper. Ventable w/PCM	HSS	—	—	60 (227)	108 (409)	230 (872)
	Sequence, Piloted 3-Way	HSUCO	—	4 (15,2)	—	—	—
	Pressure Reducing, Piloted	HSPR	—	22 (83)	—	—	—
	Pressure Reducing, Piloted	HSPRB	—	25 (106)	—	43 (163)	—
	Pressure Reducing & Relieving	HSPRR	—	19 (72)	—	—	—

FLOW CONTROL

	Needle, Adj.	HSN	17 (64)	35 (133)	45 (171)	90 (341)	225 (853)
	Fixed Flow	HSFF	12 (46)	40 (152)	—	—	—
	Needle, 90° Shut-off	HSN-90	—	30 (114)	—	—	—
	Needle, 45° Shut-off	HSN-45	—	—	50 (190)	100 (379)	190 (720)
	Flow Control (Standard)	HSF	10 (38)	38 (144)	65 (246)	90 (341)	200 (758)
	Micro	HSF-M	5 (19)	—	—	—	—
	Needle, Check	HSNC	12.5 (47)	38 (144)	73 (277)	90 (341)	225 (852)
	Throttle	HSTV	—	34 (129)	60 (227)	83 (315)	215 (815)
	Pressure Compensator	HSPCC	—	25 (95)	55 (209)	120 (455)	230 (872)

MISCELLANEOUS

	Gauge Isolator (Pull-to-Read)	HSPTR	#	—	—	—	—
	Accumulator Dump	HSAD	—	17 (64)	—	—	—
	Contamination Fuse	HSCF	2 (7,6)	2 (7,6)	6 (23)	—	—
	Air Bleed	HSAB	#	—	—	—	—

Flow Data Not Applicable.

Oilgear

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For more information about your application or the products
in this brochure, please contact your nearest Oilgear facility.



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