

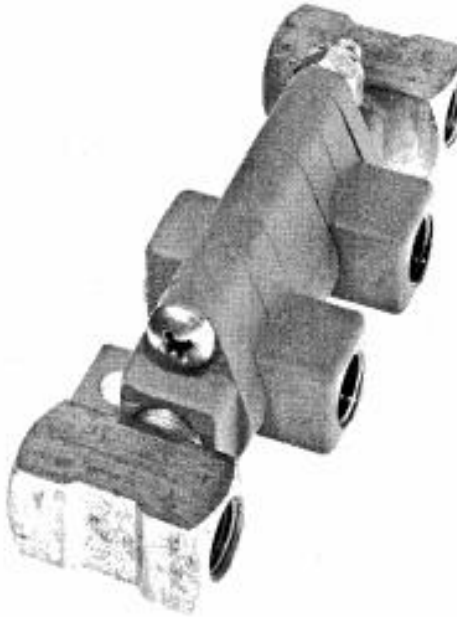


# Williams Controls

## WM-413

### Williams Customer Specification

Original Release: 09/80  
Original Project: 119883



#### APPLICATIONS

WM413A shuttle valves are designed for use in control systems of indexing cylinders. The valve allows two cylinder ports to be simultaneously pressurized by a single air signal, greatly reducing the complexity of the indexing cylinder's control circuit and the number of lines required to the control valve.

#### OPERATION

The WM413A shuttle valve is equipped with three inlet ports and four outlets. A pressure signal introduced at one of the inlets will cause air to flow to two specific outlet ports, as illustrated in the functional diagram. Air pressure is prevented from flowing from one inlet port to another by two elastomer shuttles within the valve.

#### DESCRIPTION

The WM413A is a bracket-mounted dual shuttle valve engineered for industrial and vehicular applications, which operate with a low air flow rate. WM413A valves are composed of two WM412A valves mounted on a common body with a tee on either end, giving them a total seven port.

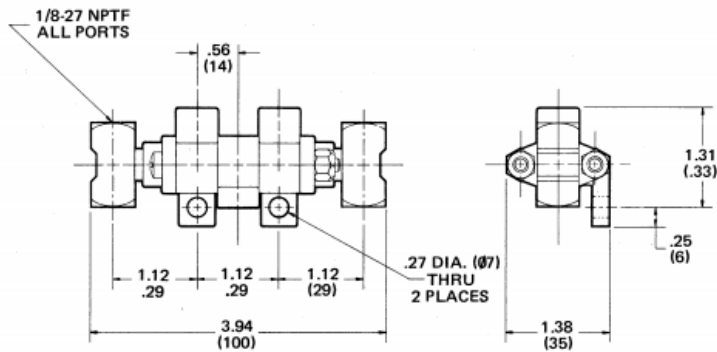
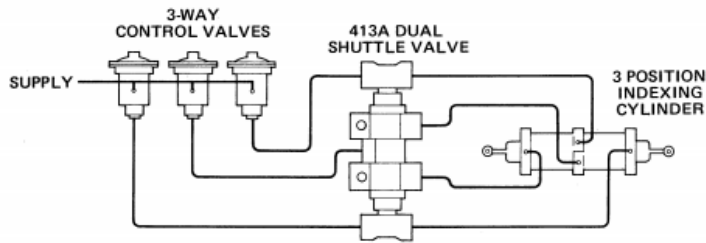
<b>CURTISS - WRIGHT</b>	PROCEDURE NAME:						
	<b>Williams Customer Specification Form</b>						
DOCUMENT NUMBER:	<b>119883</b>	Revision Level	A	Date Effective	09/1980	DAF#	



**SPECIFICATION**

Port Size	1/8-27 NPTF
Maximum Operating Pressure	150 PSI (1034, 2kPa)
Operating Temperature	-28.9°C to 93.3°C
Flow Rating	35 SCFM @ 100 PSI (0.9m <sup>3</sup> /min @ 690 kPa)
Mounting	Integral Bracket
Mounting Attitude	Optional
<b>Materials</b>	
Body Casting	Die Cast Zinc Alloy
Shuttles	Buna N
O-rings	Buna N
Net Weight	9 ounces (0.3kg)

For Continuous operation beyond this range, contact factory.



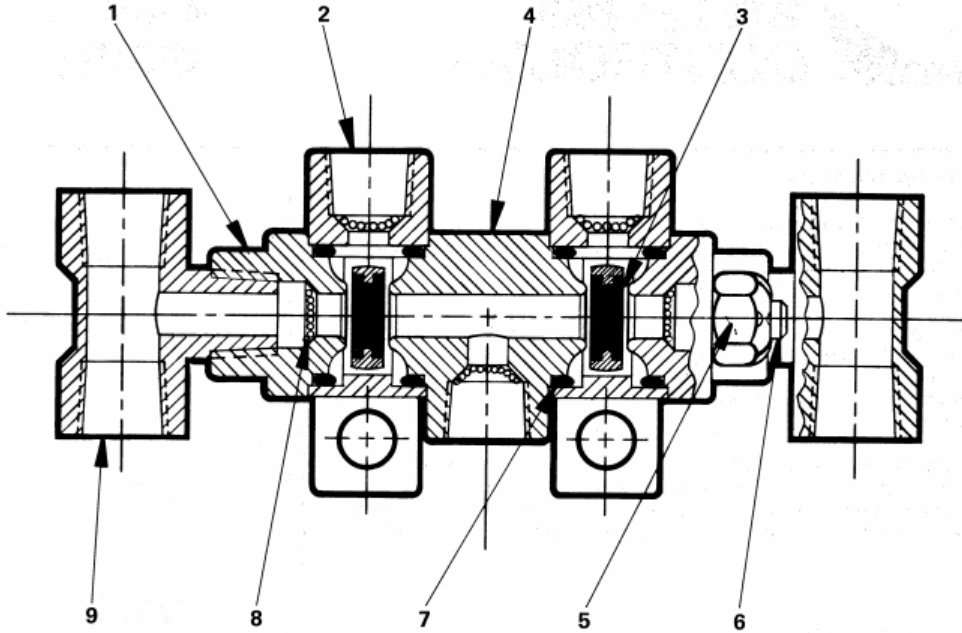
**TO ORDER**

To order **Specify WM413A, Part Number 112848**

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**PARTS IDENTIFICATION**



ITEM	DESCRIPTION	QTY
1	End Cap	2
2	Bracket Body	2
3	Poppet	2
4	Center Body	1
5	Nut	2
6	Screw	2
7	O-Ring	4
8	Screen	5
9	Pipe Tee	2

Service this unit with repair kit number 114353  
 \*Asterisk designates items included in repair kit

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		PROCEDURE NAME:	DEPT:	030			
		<b>Williams Customer Specification Form</b>					
DOCUMENT NUMBER:	<b>WQF-030-021</b>	Revision Level	A	Date Effective	11/13/07	DAF#	00396
QEMS Representative	Mary Knight	Process Owner	Michael Cooper		Department Manager	Scott Thiel	