

OTHER AEROSPACE VALVES

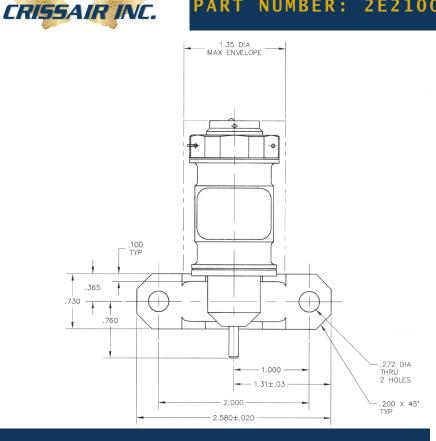
In addition to the standard valves previously listed in this catalog, Crissair Inc. designs and manufactures various other components, valves, and assemblies that fall outside of the previous categories.

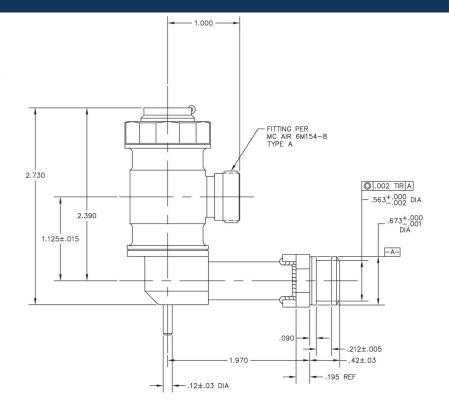
- Swivel Joints
- Attenuators
- Flow Controls
- Thermal Controls
- Pressure Regulators
- Priority Valves
- Flow Dividers
- Float Valves



This catalog contains a small sample of drawings. Please contact Crissair for additional drawings and/or configurations.

PART NUMBER: 2E2100-3, SWIVEL JOINT, HYDRAULIC





PERFORMANCE SPECIFICATIONS:

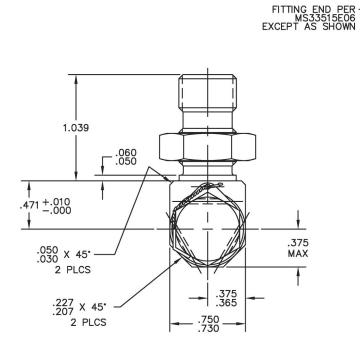
FLUIDS: HYDRAULIC OIL PER MIL-H-83282* MATERIAL: BODY 17-4PH CRES TEMPERATURE RANGE: -40°F TO 275°F OPERATING PRESSURE: 3000 PSIG PROOF PRESSURE: 6000 PSIG PRESSURE DROP: 35 PSID MAX AT 15 GPM AND 100°F AT ANY SWIVEL POSITION SWIVEL TORQUE: 45 IN/LBS MAX AT 3000 PSIG WITH ECCENTRIC LOAD OF 4.0 ± 0.4 LBS AT 1.70 ± 0.05 FROM @ OF SHAFT LEAKAGE: EXTERNAL AT STATIC SEALS OR BOSSES—NONE EXTERNAL AT DYNAMIC SEALS—ONE DROP MAX PER 100 REV WEIGHT: 0.60 LBS MAX

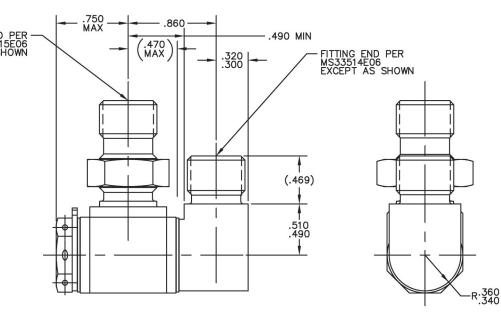
*OTHER FLUIDS MAY BE ACCEPTABLE WITH ELASTOMER CHANGE

CATEGORY 10 OTHER AEROSPACE VALVES: SWIVEL JOINTS



PART NUMBER: 2E2172-X, SWIVEL JOINT, SIZE 6





PERFORMANCE SPECIFICATIONS:

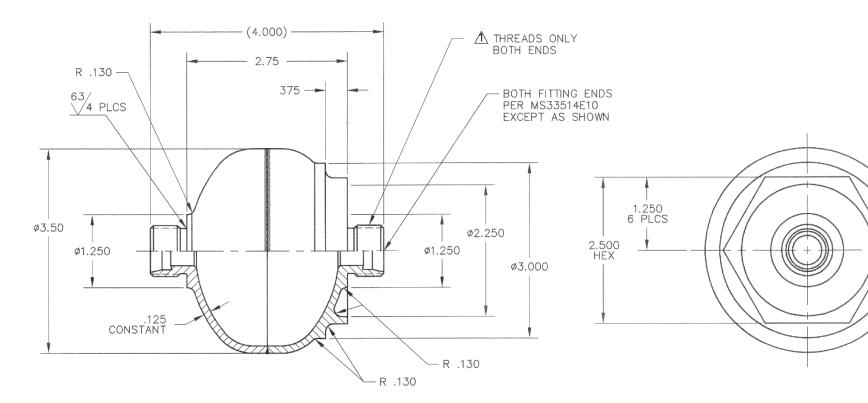
FLUIDS: HYDRAULIC FLUID PER BMS 311 (SKYDROL)* MATERIAL: BODY 15-5PH CRES TEMPERATURE RANGE: -65°F TO 275°F OPERATING PRESSURE: 3000 PSIG PROOF PRESSURE: 6000 PSIG FLOW: 3.5 GPM AT 20 PSID MAX AT 70°F TO 110°F FLUID TEMPERATURE LEAKAGE: EXTERNAL: 1 DROP MAX PER 100 REVOLUTIONS INTERNAL: NOT APPLICABLE WEIGHT: 0.41 LBS MAX

*OTHER FLUIDS MAY BE ACCEPTABLE WITH ELASTOMER CHANGE

CATEGORY 10 OTHER AEROSPACE VALVES: SWIVEL JOINTS



PART NUMBER: 3A1004-X, ATTENUATOR, HYDRAULIC PUMP



PERFORMANCE SPECIFICATIONS:

FLUIDS: ANY AIRCRAFT HYDRAULIC FLUID

MATERIAL: BODY 15-5PH CRES

TEMPERATURE RANGE: -65°F TO 225°F

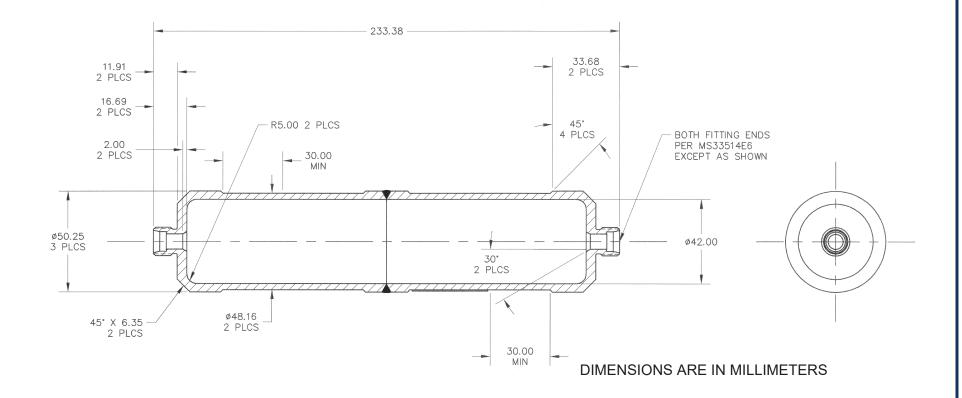
OPERATING PRESSURE: 3000 PSIG

PROOF PRESSURE: 4500 PSIG

1 DRY FILM LUBE ON THREADS ONLY



PART NUMBER: 3A1014-X, PULSATION DAMPER



PERFORMANCE SPECIFICATIONS:

FLUIDS: ANY AIRCRAFT HYDRAULIC FLUID

MATERIAL: BODY 15-5PH CRES

TEMPERATURE RANGE: -40°F TO 212°F

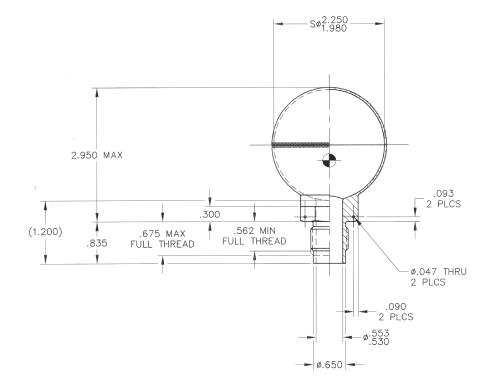
OPERATING PRESSURE: 3000 PSIG

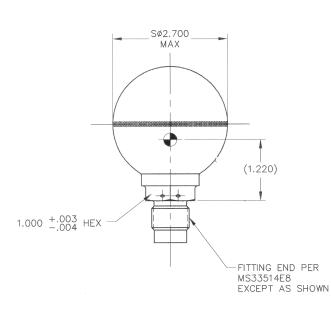
PROOF PRESSURE: 4500 PSIG

WEIGHT: 1.94 LBS MAX



PART NUMBER: 3A1018-X, ATTENUATOR BALL





PERFORMANCE SPECIFICATIONS:

FLUIDS: ANY AIRCRAFT HYDRAULIC FLUID

MATERIAL: BODY 15-5PH CRES

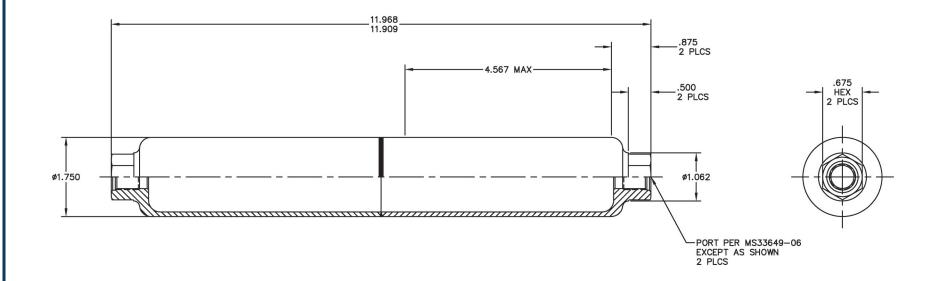
TEMPERATURE RANGE: -65°F TO 275°F

OPERATING PRESSURE: 72 PSIG

PROOF PRESSURE: 150 PSIG

WEIGHT: 0.38 LBS MAX





PERFORMANCE SPECIFICATIONS:

FLUIDS: ANY AIRCRAFT HYDRAULIC FLUID

MATERIAL: BODY 15-5PH CRES

TEMPERATURE RANGE: -65°F TO 275°F

OPERATING PRESSURE: 3000 PSIG

PROOF PRESSURE: 4500 PSIG

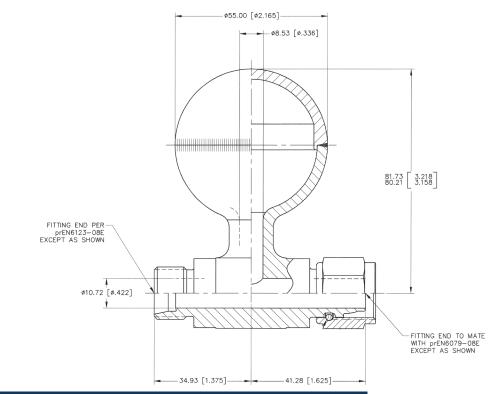
FLOW: 6.1 GPM AT 75 PSID MAX PRESSURE DROP WITH 3000 PSI AT 100°F

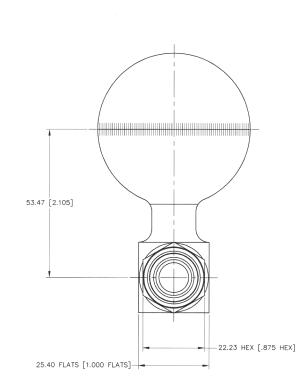
FIRE RESISTANCE: WITHSTAND A 2000°F FLAME FOR 5 MINUTES

WEIGHT: 2.02 LBS MAX



PART NUMBER: 3A1046-X, RIPPLE DAMPER





PERFORMANCE SPECIFICATIONS:

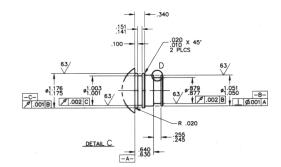
FLUIDS: ANY AIRCRAFT HYDRAULIC FLUID MATERIAL: BODY 15-5PH CRES SWIVEL NUT 17-4PH CRES TEMPERATURE RANGE: NORMAL: -40°F TO 201°F EXTREME: -65°F TO 230°F STORAGE: -67°F TO 185°F SURVIVAL: -76°F TO 248°F OPERATING PRESSURE: 5000 PSIG PROOF PRESSURE: 7500 PSIG FLOW: 13 GPM AT 19.4 PSID MAX WEIGHT: 1.16 LBS MAX

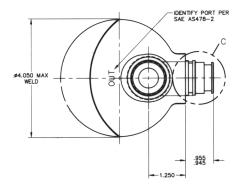


PART NUMBER: 3A1054-X, ATTENUATOR

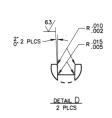
А

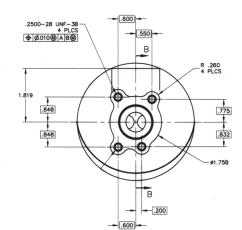
ø3.980





- 5.180





9.572

Ø.672

-PORT PER AS 1300-16



PERFORMANCE SPECIFICATIONS:



FLUIDS: ANY AIRCRAFT HYDRAULIC FLUID

MATERIAL: BODY 6AL-4V TI

TEMPERATURE RANGE: -65°F TO 300°F

OPERATING PRESSURE: 5050 PSIG

PROOF PRESSURE: 7620 PSIG

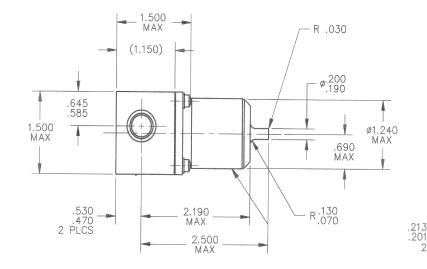
WEIGHT: 1.97 LBS MAX

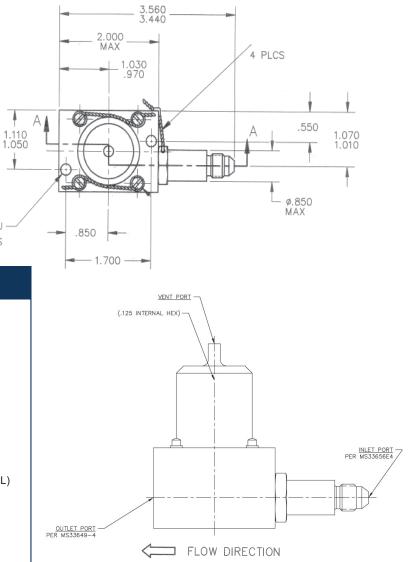


PART NUMBER: 3R1698-X, PRESSURE REGULATOR AND INTEGRAL RELIEF ASSY

THRU

2 PLCS





PERFORMANCE SPECIFICATIONS:

FLUIDS: AIR (OPERATING); WATER, CORVIS OIL (NON-OPERATING) MATERIAL: BODY 2024-T351 AL TEMPERATURE RANGE: AMBIENT: -80°F TO 185°F (STORAGE)

-65°F TO 250°F (OPERATING) FLUID: 100°F TO 450°F AND 120 PSIG (AIR) ROOM TEMPERATURE AND 125 PSIG MAX (WATER) 350°F AND 25 PSIG MAX (CORVIS OIL)

PRESSURES:	INLET	OUTLET	VENT
OPERATING:	20-105 PSIG (ACT)	20±2 PSIG (PRESET)	25 PSIG MAX
	120 PSIG MAX		
PROOF:	250 PSIG	50 PSIG	50 PSIG

FLOW: 0.7 SCFM MIN AT 25±1 PSIG INLET PRESSURE, AND 20±2 PSIG OUTLET PRESSURE (AT SEA LEVEL) LEAKAGE: REGULATING FUNCTION: 1.5 SCIM INTERNAL RELIEF FUNCTION: 1.5 SCIM

REVERSE FLOW FUNCTION: BUBBLE TIGHT

INTERNAL RELIEF FUNCTION: OUTLET PRESSURE RELIEF FUNCTION SHALL REMAIN CLOSED AT 22 PSIG MIN AND BEGIN VENTING AT 25 PSIG MAX.

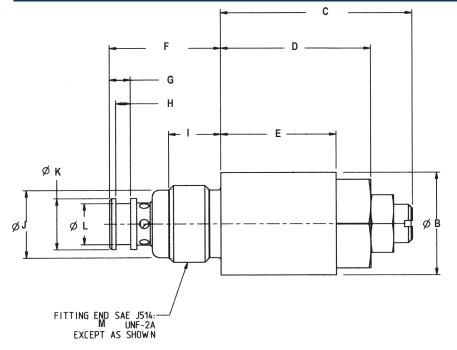
OUTLET PRESSURE EXCEEDING 25 PSIG SHALL BE EXHAUSTED AT A FLOWRATE OF 1.0 SCFM MIN THROUGH THE VENT.

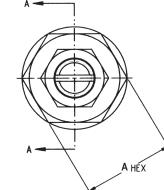
WEIGHT: 1.0 LBS MAX

CATEGORY 10 OTHER AEROSPACE VALVES: PRESSURE REGULATORS



PRESSURE COMPENSATED FLOW CONTROLS, HIGH PRESSURE, ADJUSTABLE





PERFORMANCE SPECIFICATIONS:

+/-0.48 GPM

+/-0.72 GPM

F	LUIDS: MIL	S: MIL-PRF-83282*					
N	1ATERIAL: E	BODY 15-5PH CI	RES				
Т	EMPERATU	JRE RANGE: -65	°F TO 275°F				
С	PERATING	PRESSURE: 30	00 PSIG				
Ρ	ROOF PRE	SSURE: 4500 PS	SIG				
F	LOW RANG	E: (SEE TABLE))				
	PART	FLOW RANGE	FLOW POINT TOLERANCE	PRESSURE RANGE			
	NUMBER	(GPM)	(FROM SET POINT)	(PSID)			
	35370-X	0.30-0.36	+/023 GPM	200-3000			
	35360-X	0.44-0.59	+/-0.04 GPM	200-3000			
	35350-X	0.97-1.21	+/-0.11 GPM	200-3000			
	35340-X	1.22-2.09	+/-0.13 GPM	350-3000			
	35330-X	2.93-3.58	+/-0.23 GPM	200-3000			

35320-X

35310-X

5.44-6.64

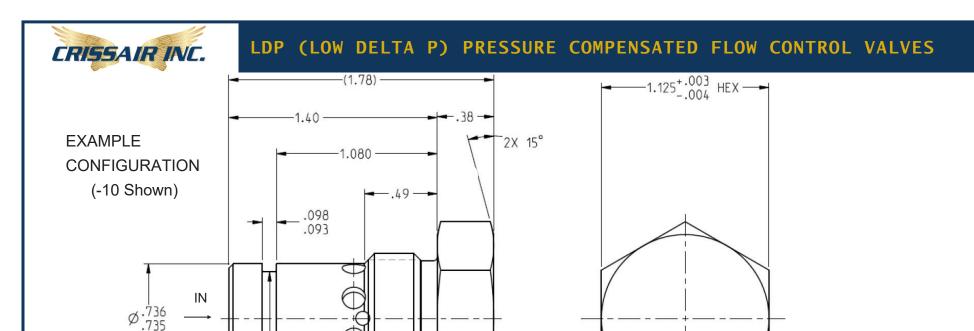
8.05-9.83

Part No.	А	В	С	D	E	F	G	Н	I	J	К	L	М
35370-X	.87	1.00	1.81	1.43	1.10	1.06 ±.02	.200	.143 .138	.50	.660	.498 .497	.400 .398	3/4 - 16
35360-X	.87	1.00	1.81	1.43	1.10	1.06 ±.02	.200	.143 .138	.50	.660	.498 .497	.400 .398	3/4 - 16
35350-X	.87	1.00	1.96	1.43	1.10	1.06 ±.02	.200	.143 .138	.50	.660	.498 .497	.400 .398	3/4 - 16
35340-X	.87	1.00	1.96	1.43	1.10	1.06 ±.02	.200	.143 .138	.50	.660	.498 .497	.400 .398	3/4 - 16
35330-X	.87	1.00	1.96	1.43	1.10	1.06 ±.02	.200	.143 .138	.50	.660	.498 .497	.400 .398	3/4 - 16
35320-X	1.00	1.15	2.26	—		1.26	.185	.144 .139	.50	.770	.623 .622	.525 .523	7/8 - 14
35310-X	1.00	1.15	2.26	_		1.26	.185	.144 .139	.50	.770	.623 .622	.525 .523	7/8 - 14

CATEGORY 10 OTHER AEROSPACE VALVES: FLOW CONTROL VALVES (FLOW REGULATORS)

500-3000

500-3000



PERFORMANCE SPECIFICATIONS:

Ø.626

0

U

FLUIDS: HYDRAULIC OIL, LUBRICATION OIL, PAO, ETHYLENE GLYCOL & OTHER (CONTAINS NO ELASTOMERS) TEMPERATURE RANGE: -65°F TO 400°F

FLOW RANGE: (SEE TABLE) FLOW REGULATED WITHIN ITS PERCENTAGE OF DESIRED SET POINT.

32/

CARTRIDGE SIZE	AVAILABLE FLOW	PRESSURE	MATERIAL TYPE
PER AS4395	SET POINT	RANGE	
	RANGE (GPM)	(PSID)	
-6	.0320	50-150	CRES
-8	.2050	25-150	ALUMINUM
-10	.50-2.0	20-150	ALUMINUM
-12	2.0-6.0	10-150	ALUMINUM
-16	6.0-15.0	10-150	ALUMINUM
-20	15.0-25.0	8-100	ALUMINUM

32

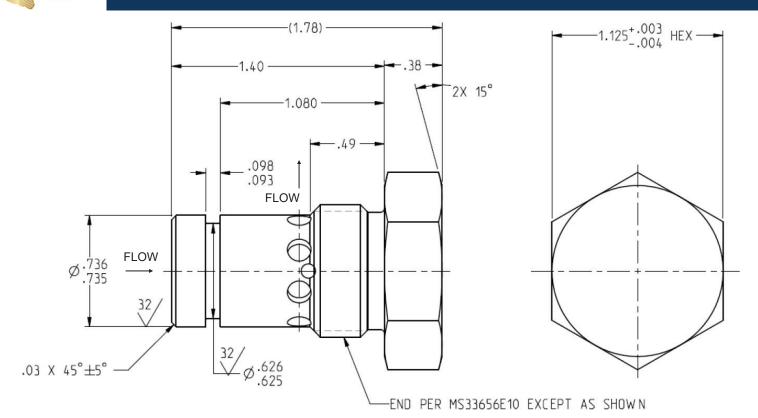
.03 X 45°±5°

Note: Specific dimensions per cartridge are available. Please request additional information if needed.

-END PER MS33656E10 EXCEPT AS SHOWN



PART NUMBER: 34120-X, FLOW CONTROL VALVE



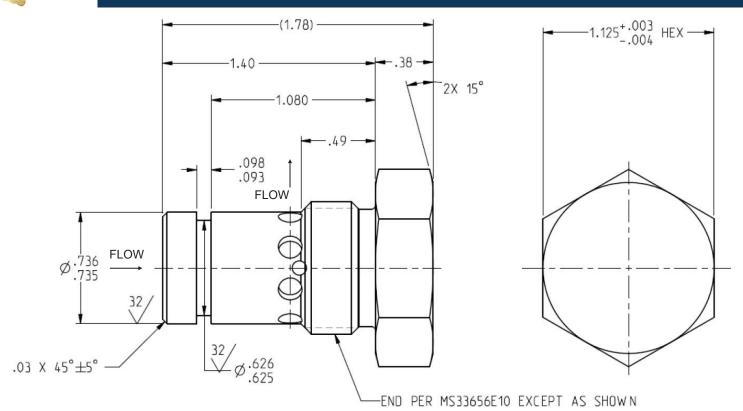
PERFORMANCE SPECIFICATIONS:

FLUIDS: ANY AIRCRAFT HYDRAULIC FLUID MATERIAL: BODY 6061 AL TEMPERATURE RANGE: 150°F +10/-0°F OPERATING PRESSURE: 1800 PSIG PROOF PRESSURE: 2400 PSIG FLOW REGULATION: 4.44 GPM + 4/-2% AT 20 TO 50 PSID 4.44 GPM ± 2% AT 50 TO 120 PSID

CRISSAIR INC.



PART NUMBER: 34130-X, FLOW CONTROL VALVE



PERFORMANCE SPECIFICATIONS:

FLUIDS: ANY AIRCRAFT HYDRAULIC FLUID

CRISSAIR INC.

MATERIAL: BODY 6061 AL

TEMPERATURE RANGE: 150°F +10/-0°F

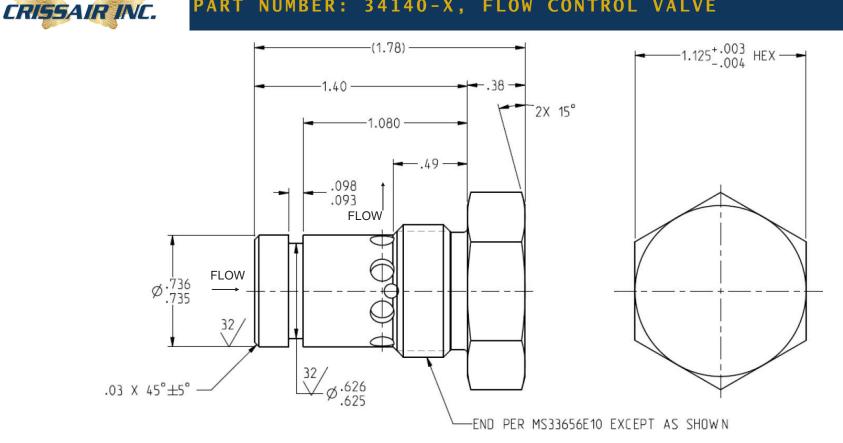
OPERATING PRESSURE: 1800 PSIG MAX

PROOF PRESSURE: 2400 PSIG MINIMUM

FLOW REGULATION: 0.72 GPM ± 2% AT 20 TO 120 PSID



PART NUMBER: 34140-X, FLOW CONTROL VALVE



PERFORMANCE SPECIFICATIONS:

FLUIDS: ANY AIRCRAFT HYDRAULIC FLUID

MATERIAL: BODY 6061 AL

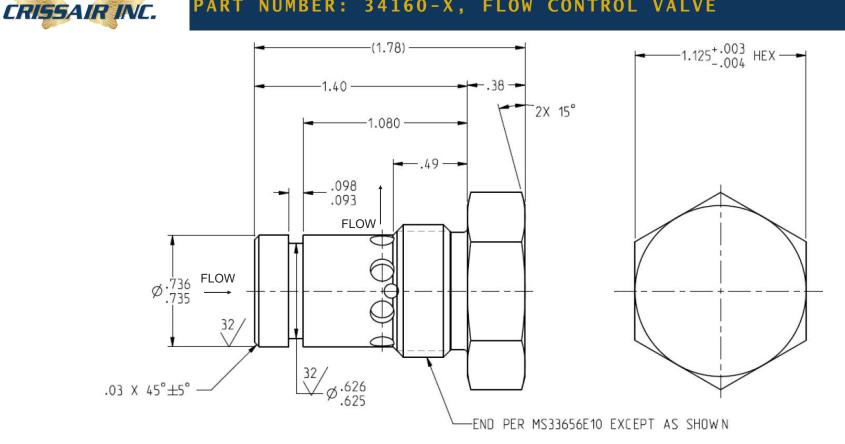
TEMPERATURE RANGE: 150°F +10/-0°F

OPERATING PRESSURE: 1800 PSIG MAX

PROOF PRESSURE: 2400 PSIG MINIMUM

FLOW REGULATION: 1.30 GPM ± 2% AT 20 TO 150 PSID

PART NUMBER: 34160-X, FLOW CONTROL VALVE



PERFORMANCE SPECIFICATIONS:

FLUIDS: ANY AIRCRAFT HYDRAULIC FLUID

MATERIAL: BODY 6061 AL

TEMPERATURE RANGE: 150°F +10/-0°F

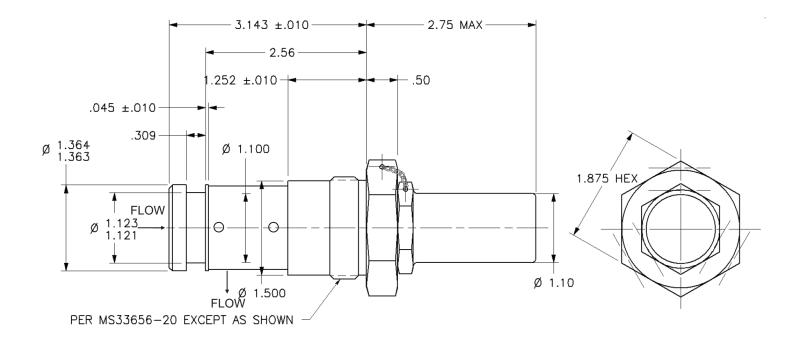
OPERATING PRESSURE: 1800 PSIG MAX

PROOF PRESSURE: 2400 PSIG MINIMUM

FLOW REGULATION: 0.91 GPM ± 2 % AT 600-1100 PSID



PART NUMBER: 34260-X, FLOW CONTROL VALVE



PERFORMANCE SPECIFICATIONS:

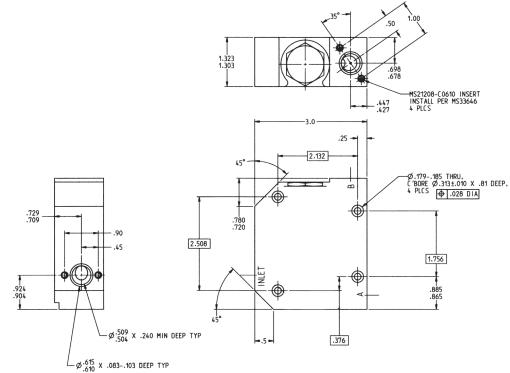
FLUIDS: MIL-PRF-83282* MATERIAL: BODY 15-5PH CRES TEMPERATURE RANGE: -25°F TO 275°F OPERATING PRESSURE: 3000 PSIG PROOF PRESSURE: 4500 PSIG FLOW REGULATION: 10.0 GPM ±10% AT 200-3000 PSID ADJUSTMENT RANGE: +1.0 / -3.0 GPM AROUND NOMINAL SETTING

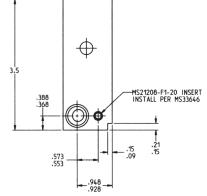






PART NUMBER: 36990-X, TEMPERATURE REGULATING VALVE





PERFORMANCE SPECIFICATIONS:

FLUIDS: PAO (POLYALPHAOLEFIN)*

MATERIAL: HOUSING 6061-T6511 AL

TEMPERATURE RANGE: -65°F TO 266°F

OPERATING PRESSURE: 100 PSIG

PROOF PRESSURE: 150 PSIG

FLOW REGULATION: 5 PSID MAX AT 4 GPM (ALL POSITIONS)

OPERATION: WITH 100% FLOW AT INLET AND AN INLET OIL TEMPERATURE OF 50°F OR LESS THERE

SHALL BE 95% MINIMUM FLOW THRU PORT A (5% MAX PORT B). AT 59°F INLET OIL TEMPERATURE THERE SHALL BE 50±20% FLOW THRU PORT A (50±20% PORT B). AT AN INLET OIL TEMPERATURE GREATER THAN 86°F THERE SHALL BE 95% MINIMUM FLOW THRU PORT B (5% MAX PORT A).

RESPONSE: WITH AN INLET FLOWRATE OF 3 GPM, THE FLOW SHALL CHANGE FROM PORT A TO PORT B WITHIN THREE MINUTES WHEN COOLANOL INLET TEMPERATURE IS INSTANTANEOUSLY

CHANGED FROM 50°F TO 86°F

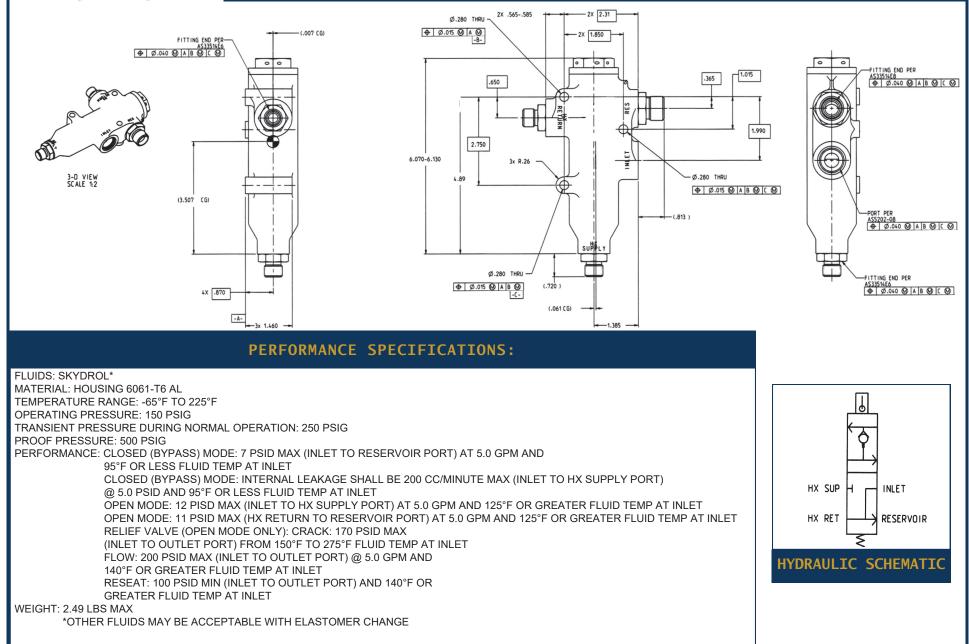
WEIGHT: 1.20 LBS MAX

*OTHER FLUIDS MAY BE ACCEPTABLE WITH ELASTOMER CHANGE

CATEGORY 10 OTHER AEROSPACE VALVES: THERMAL CONTROL VALVES

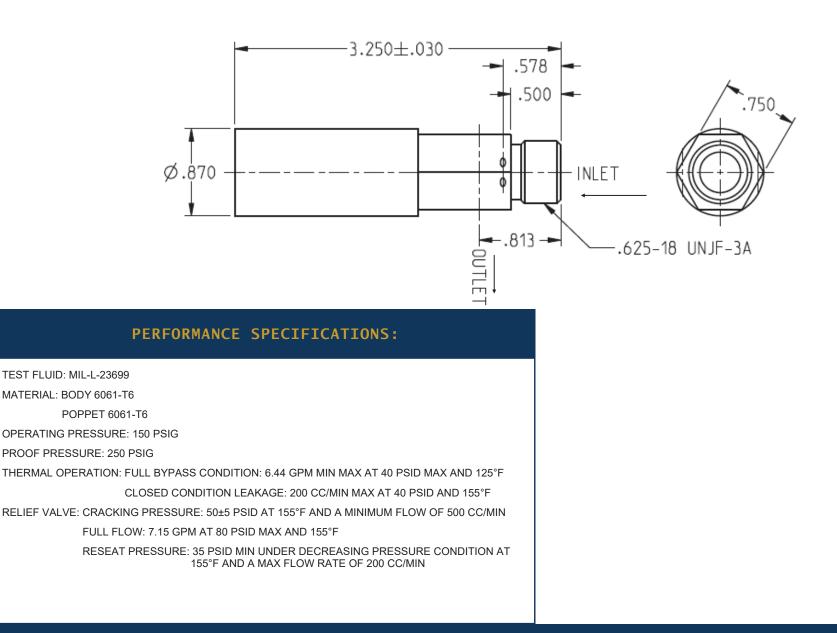


PART NUMBER: 37610-X, HEAT EXCHANGER BYPASS VALVE



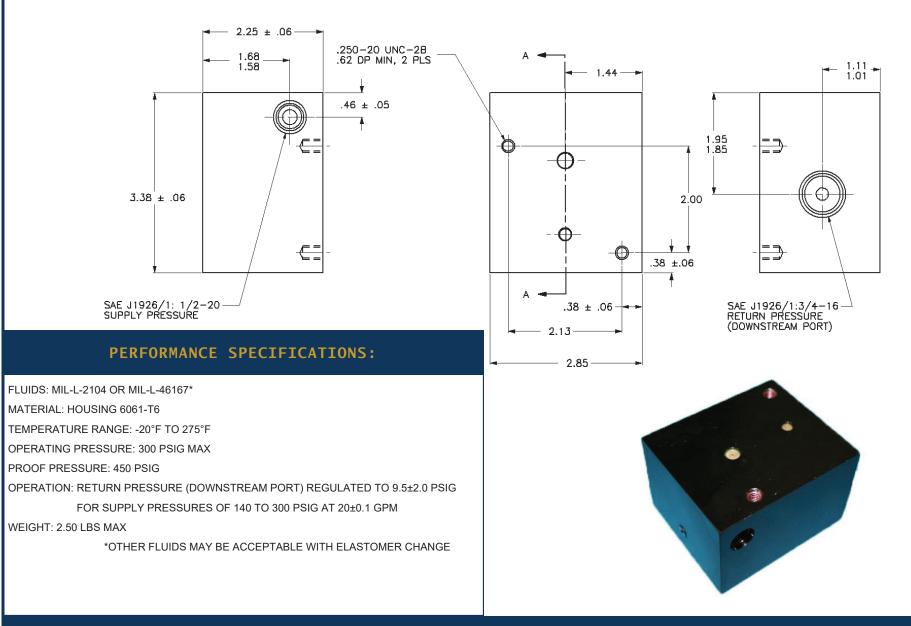
CATEGORY 10 OTHER AEROSPACE VALVES: THERMAL CONTROL VALVES

CRISSAIR INC.



CATEGORY 10 OTHER AEROSPACE VALVES: THERMAL CONTROL VALVES





CATEGORY 10 OTHER AEROSPACE VALVES: PRESSURE REGULATOR VALVES

CATEGORY 10 OTHER AEROSPACE VALVES: PRESSURE REGULATOR VALVES

*OTHER FLUIDS MAY BE ACCEPTABLE WITH ELASTOMER CHANGE

WEIGHT: 0.20 LBS MAX

INTERNAL LEAKAGE: 5 CC/MIN MAXIMUM AT PRESSURES BELOW RESEAT

RESEAT PRESSURE: 200 PSID MINIMUM

FLOW: 6 GPM AT 310 PSID MAX

POPPET 15-5PH TEMPERATURE RANGE: -65°F TO 343°F **OPERATING PRESSURE: 600 PSIG MAX**

FLUIDS: MIL-PRF-23699* MATERIAL: BODY 6061-T6

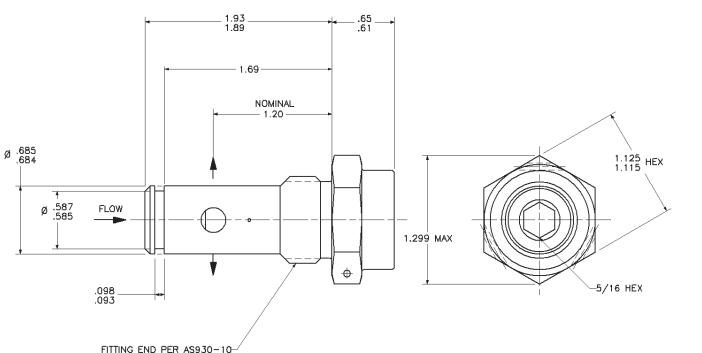
CRISSAIR INC.

PERFORMANCE SPECIFICATIONS:





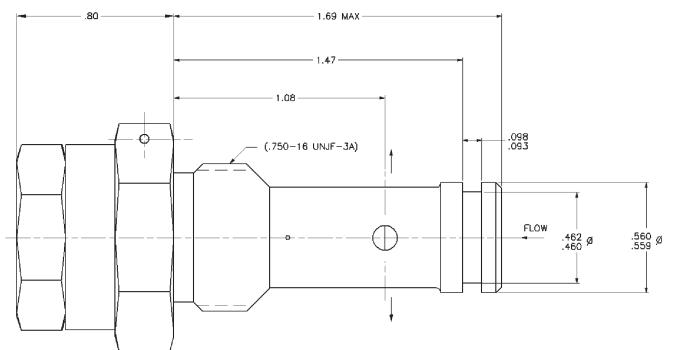




PART NUMBER: 36010-X, PRESSURE REGULATOR (BYPASS VALVE)



PART NUMBER: 36030-X, PRESSURE REGULATOR



PERFORMANCE SPECIFICATIONS:

FLUIDS: MIL-PRF-83282* MATERIAL: BODY 6061-T6

POPPET 15-5PH

TEMPERATURE RANGE: -65°F TO 343°F

OPERATING PRESSURE: 1500 PSIG MAX

PROOF PRESSURE: 2100 PSIG

CRACKINGING PRESSURE: 800 ± 50 PSID

FLOW: 1.5 GPM AT 1020 TO 1180 PSID

3.0 GPM AT 1320 TO 1500 PSID

RESEAT PRESSURE: 640 PSID MINIMUM

INTERNAL LEAKAGE: 5 CC/MIN MAXIMUM AT PRESSURES BELOW RESEAT

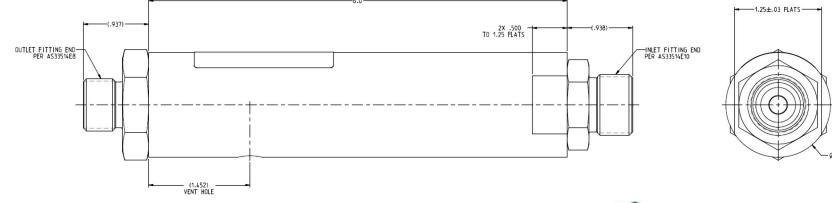
WEIGHT: 0.20 LBS MAX

*OTHER FLUIDS MAY BE ACCEPTABLE WITH ELASTOMER CHANGE



CATEGORY 10 OTHER AEROSPACE VALVES: PRESSURE REGULATOR VALVES





PERFORMANCE SPECIFICATIONS:

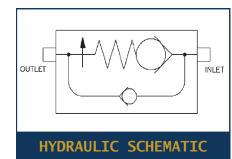
FLUIDS: LOW DENSITY PHOSPHATE ESTER FLUID TYPE IV AND V (SKYDROL)* MATERIAL: HOUSING 2024-T351

POPPET 440C CRES

- TEMPERATURE RANGE: -67°F TO 185°F
- **OPERATING PRESSURE: 3000 PSIG**
- PROOF PRESSURE: 4500 PSIG
- CRACK: 2450 PSIG MAX AT 10 CC/MIN
- FLOW: 2450 PSIG MAX AND 100 PSID MAX AT 7.3 GPM
- RESEAT PRESSURE: 2000 PSIG MINIMUM AT 1 CC/MIN
- INTERNAL LEAKAGE: 7.0 DPM MAX AT 0 TO 2000 PSIG
- REVERSE FLOW: 100 PSID MAX AT 7.3 GPM
- WEIGHT: 1.50 LBS MAX

***OTHER FLUIDS MAY BE ACCEPTABLE WITH ELASTOMER CHANGE**

CATEGORY 10 OTHER AEROSPACE VALVES: PRIORITY VALVES

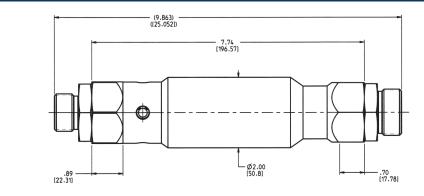


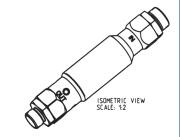


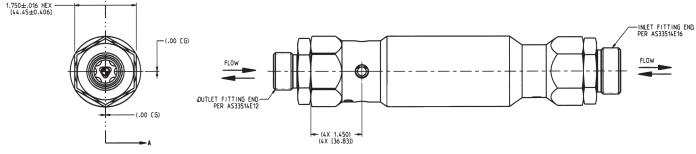


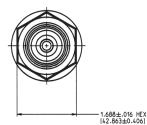


PART NUMBER: 37430-X, PRIORITY VALVE



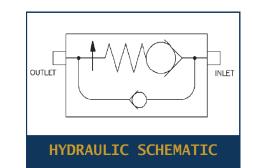






PERFORMANCE SPECIFICATIONS:

FLUIDS: SKYDROL* MATERIAL: HOUSING 2024-T351 POPPET 17-4 PH TEMPERATURE RANGE: 20°F TO 225°F **OPERATING PRESSURE: 3000 PSIG** TRANSIENT PRESSURE DURING NORMAL OPERATION: 3750 PSIG PROOF PRESSURE: 4500 PSIG PERFORMANCE (INLET TO OUTLET) **REFERENCE CRACKING PRESSURE: 2400 PSIG MINIMUM** FLOW: 20 GPM AT 180 PSID MAX WITH 2700 ± 50 PSIG AT THE INLET RESEAT PRESSURE: 7 DPM MAXIMUM AT 2113 TO 0 PSIG INTERNAL LEAKAGE: 7.0 DPM MAXIMUM AT 0 TO 2113 PSIG PERFORMANCE (OUTLET TO INLET) FLOW: 1.0 GPM MINIMUM AT 100 PSID RESPONSE. VALVE: THE VALVE SHALL REACT TO THE FLOW DEMAND AND REGULATE THE INLET PRESSURE AT 2113 PSIG MINIMUM WITHIN 300 MILLISECONDS WEIGHT: 2.72 LBS MAX

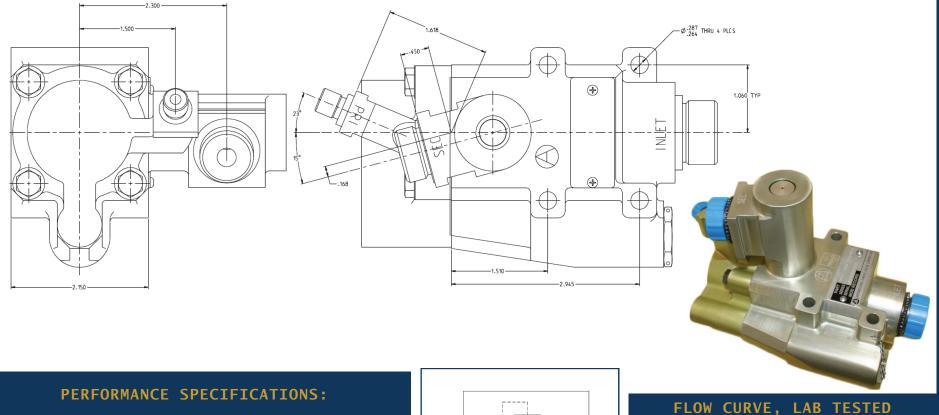


*OTHER FLUIDS MAY BE ACCEPTABLE WITH ELASTOMER CHANGE

CATEGORY 10 OTHER AEROSPACE VALVES: PRIORITY VALVES

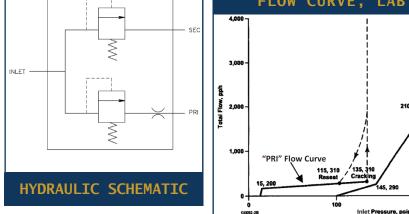


PART NUMBER: 33700-X, FUEL FLOW DIVIDER



FLUIDS: JP4, JP5, OR EQUIVALENT MATERIAL: HOUSING 17-4 PH TEMPERATURE RANGE: -65°F TO 275°F OPERATING PRESSURE: 1000 PSIG MAX PERFORMANCE: SEE FLOW CURVE PRIMARY CRACK: 20 PSID MAX PRIMARY FLOW: SEE CURVE

SECONDARY CRACK: 145 PSID MAX SECONDARY FLOW: SEE CURVE WEIGHT: 2.50 LBS MAX



310, 3900

300

"SEC" Flow Curve

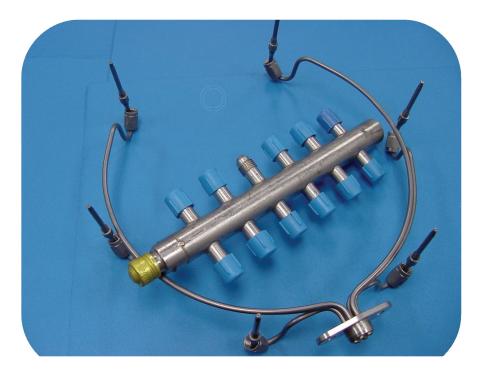
210. 2

200

CATEGORY 10 OTHER AEROSPACE VALVES: FUEL FLOW DIVIDERS



PART NUMBER: MULTI-PORT FUEL DISTRIBUTION MANIFOLDS



PERFORMANCE SPECIFICATIONS:

FLUIDS: DIESEL OILS, JET FUELS & OTHER

TEMPERATURE RANGE: -65°F TO 500°F (HIGH TEMPERATURE MATERIALS AVAILABLE FOR EXTREME ENVIRONMENTS)

OPERATING PRESSURE: UP TO 1000 PSI

FLOW TOLERANCE RANGE ±1% TO 10% NOZZLE TO NOZZLE/PORT TO PORT

FLOW RATES: UP TO 10 GPM

NOTES: CRISSAIR HAS A VARIETY OF CONFIGURATIONS AND FLOW RATES FOR AEROSPACE, COMMERCIAL, AND INDUSTRIAL APPLICATIONS.

CATEGORY 10 OTHER AEROSPACE VALVES: FUEL MANIFOLDS



CRISSAIR HAS VARIOUS OTHER VALVES NOT LISTED IN THE

CATALOG WITH DIFFERENT MATERIALS, FITTINGS, AND SIZE CONFIGURATIONS.

CONTACT CRISSAIR FOR ADDITIONAL INFORMATION/DRAWINGS AT

(661) 367-3300 OR SALES@CRISSAIR.COM.

YOU CAN ALSO VISIT WWW.CRISSAIR.COM.