



PARTS CATALOGUE

GLOBAL LEADER IN MOBILE
AVIATION REFUELLING EQUIPMENT





Fuelling Hose & Accessories

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Refuelling Nozzles & Accessories

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1 AVIATION HOSE & FITTINGS

ELAFLEX HOSE FITTINGS

HOSE BEADS

HOSE REFLECTIVE COVER

GROUND HOSE TROLLEYS



AVIATION HOSE & FITTINGS

PART NO	DESCRIPTION
3350	HD-C Sense Line Hose 10mm
3343	HD-C Refuelling Hose 25mm
3344	HD-C Refuelling Hose 32mm
3345	HD-C Refuelling Hose 38mm
3346	HD-C Refuelling Hose 50mm
3347	HD-C Refuelling Hose 63mm
3348	HD-C Refuelling Hose 75mm
3349	HD-C Refuelling Hose 100mm

ELAFLEX HOSE FITTINGS



Male Fitting



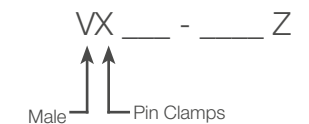
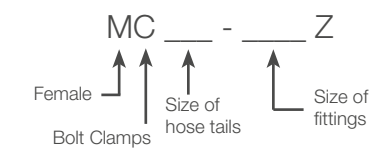
Female Fitting



Spannloc Hose Clamp
(Bolt type)



Spannfix Hose Clamp
(Pin type)



Example: MC 25 - 1 Z 1" hosetail x 1" female BSPP with bolt clamp
VX 25 - 1.25Z 1" hosetail x 1 1/4" Male BSPP with pin clamp

FITTINGS Hose Tail + Bolt Clamps (Spannloc)					FITTINGS Hose Tail + Pin Clamps (Spannfix)				
FEMALE					FEMALE				
MC	25	-	1 Z		MX	25	-	1 Z	
		-	1.25 Z				-	1.25 Z	
MC	32	-	1.25 Z		MX	32	-	1.25 Z	
		-	1.5 Z				-	1.5 Z	
MC	38	-	1.5 Z		MX	38	-	1.5 Z	
		-	2 Z				-	2 Z	
MC	50	-	2 Z		MX	50	-	2 Z	
		-	2.5 Z				-	2.5 Z	
MC	63	-	2.5 Z		MX	63	-	2.5 Z	
		-	3 Z				-	3 Z	
MC	75	-	3 Z		MX	75	-	3 Z	
		-	4 Z				-	4 Z	
MC	100	-	4 Z		MX	100	-	4 Z	

FITTINGS Hose Tail + Pin Clamps (Spannfix)					FITTINGS Hose Tail + Pin Clamps (Spannfix)				
FEMALE					FEMALE				
MX	25	-	1 Z		VX	25	-	1 Z	
		-	1.25 Z				-	1.25 Z	
MX	32	-	1.25 Z		VX	32	-	1.25 Z	
		-	1.5 Z				-	1.5 Z	
MX	38	-	1.5 Z		VX	38	-	1.5 Z	
		-	2 Z				-	2 Z	
MX	50	-	2 Z		VX	50	-	2 Z	
		-	2.5 Z				-	2.5 Z	
MX	63	-	2.5 Z		VX	63	-	2.5 Z	
		-	3 Z				-	3 Z	
MX	75	-	3 Z		VX	75	-	3 Z	
		-	4 Z				-	4 Z	
MX	100	-	4 Z		VX	100	-	4 Z	



HOSE BEADS

PART NO	DESCRIPTION
HB1.25Z	Hose Bead suit 32mm ID hose
9054	Hose Bead suit 38mm ID hose
HB50Z	Hose Bead suit 50mm ID hose
HB2.5Z	Hose Bead suit 63mm ID hose

HOSE REFLECTIVE COVER

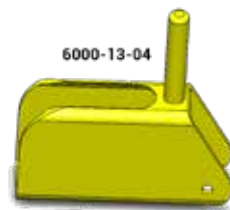
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PART NO	DESCRIPTION
9485	Suit 4" ID hose
ZZ0408	Suit 3" ID hose

GROUND HOSE TROLLEYS

PART NO	DESCRIPTION
6000-13-15	Hose Trolley Assembly Suit 4" Ground Hose
6000-13-04	Dolly Lock Bar Suit Trolley
L65723	Replacement Castor Wheel Suit Trolley



CARTER UNDERWING NOZZLES
ELAFLEC OVERWING NOZZLES
OVERWING NOZZLE ACCESSORIES
ELAFLEX BOWSER NOZZLE
DROP IN PLATFORM NOZZLE STOWAGE
BALL & SOCKET UNDERWING NOZZLE STOWAGE
BALL & SOCKET OVERWING NOZZLE STOWAGE
TWIST LOCK BAYONET ADAPTOR
QUICK DISCONNECT COUPLINGS
NOZZLE SWIVELS

2 REFUELLING NOZZLES & ACCESSORIES

2



CARTER UNDERWING NOZZLES

PART NO	DESCRIPTION
64348	Underwing fueling nozzle has been used worldwide in the aircraft fueling industry for many years. It includes a true swivel disconnect and compact flow control handle, allowing easy connection to the aircraft.
64200	A lightweight and rugged underwing fueling nozzle which is designed to increase durability and decrease maintenance costs. Internal interlock mechanism means there are no pins to wear aircraft adaptor slots.
64250	Derived from the 64200 nozzle. The 64250 nozzle features robust components and field replaceable wear pads which allow it to perform well in heavy use locations.

*Consult our sales team for further information and availability on a configuration to suit your application.

OVERWING NOZZLES

PART NO	DESCRIPTION
AVN042	1 ½" Overwing Fuelling Nozzle.
AVN-25Z	AVN042 Nozzle comes with 25mm spout.
AVN-32Z	AVN042 Nozzle comes with 32mm spout.
AVN-38Z	AVN042 Nozzle comes with 38mm spout.
AVN-JZ	AVN042 Nozzle comes with Jet Selective spout.
ZVF50JET.3	Jet nozzle with 100 mesh strainer & 1 1/2 " female BSPP hose inlet (spout & accessories not included)
ZVF50AVGAS.3	Avgas Nozzle with 100 mesh strainer & 1 1/2" female BSPP hose inlet (spout & accessories not included)



OVERWING NOZZLE ACCESSORIES

PART NO	DESCRIPTION
ER250	25mm round spout
ER495	32mm round spout
ER583	38mm round spout
ER587 JET	Jet Selective spout
GKG25	25mm dust cap & chain
GKG32	32mm dust cap & chain
KGK38	38 mm dust cap & chain
GKG38-J	Jet Selective dust cap & chain
EKG1200	1.2mt static lead and brass clamp

2

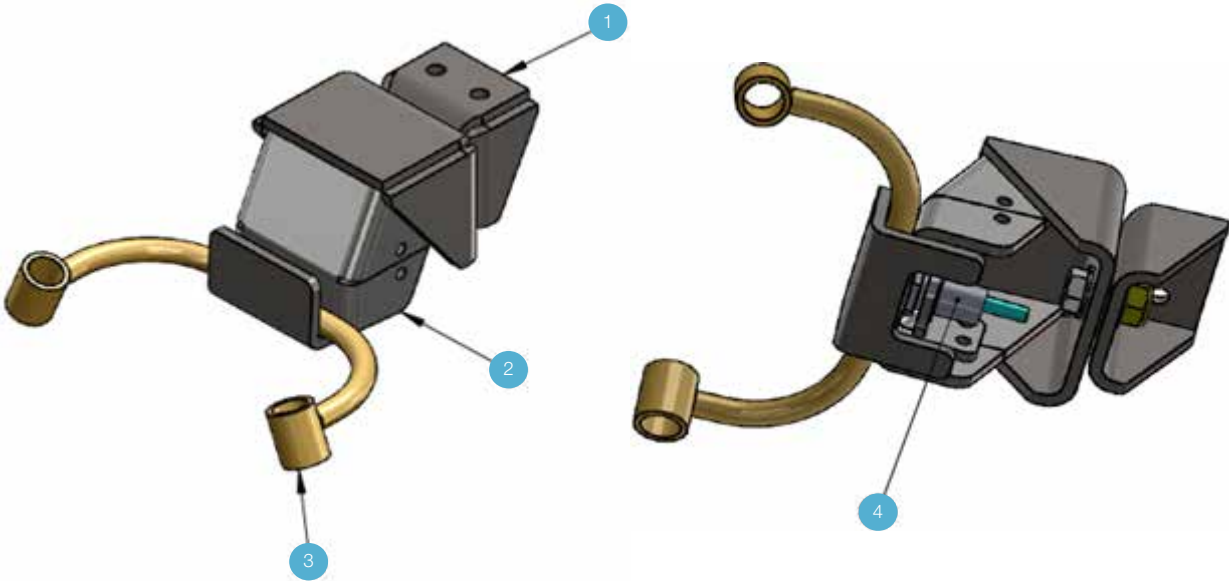


ELAFLEX BOWSER NOZZLE

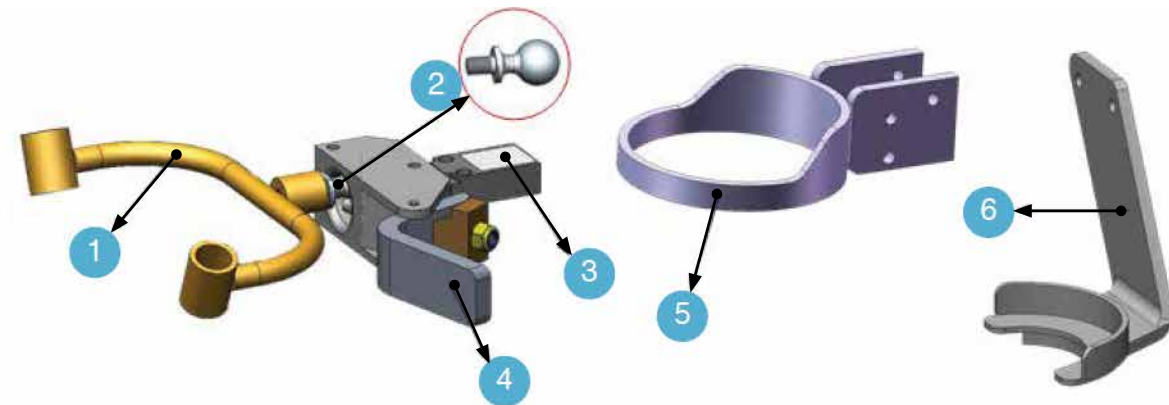
PART NO	DESCRIPTION
ZVF25.41	1" Bowser style nozzle c/w static lead, 100 mesh strainer and dust cap

DROP IN PLATFORM NOZZLE STOWAGE

ITEM NO	PART NO	DESCRIPTION
	8568	Plunger Interlock Switch
	8850	Proximity Interlock Switch
1	4600-01-15	Drop-In Handle
2	4600-01-18	Drop-In Nozzle Stowage
3	4600-02-03	Bracket suit Carter 64348 Nozzle
4	3500-15-02	Proximity Switch 18mm

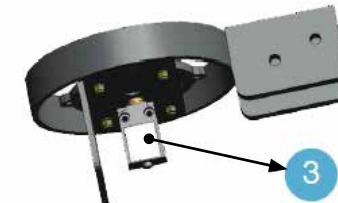


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BALL & SOCKET UNDERWING NOZZLE STOWAGE

ITEM NO	PART NO	DESCRIPTION
1	4600-06-01	Bracket suit Carter Underwing
2	4600-05-08	Interlock Ball only
3	XCWD21F0L5	Plunger Interlock Switch
4	4600-05-00	Interlock Ball & Socket Assembly
5	4600-01-01	Nozzle Holder
6	4600-04-01	Nozzle Holder
7	3500-15-01	Proximity Switch 12mm



2

TWIST LOCK BAYONET ADAPTOR

ITEM NO	PART NO	DESCRIPTION
1	4600-01-07	Bucket Style Nozzle Stowage
2	20216201F	Twist-lock Bayonet Adaptor
3	XCWD21F0L5	Plunger Interlock Switch



QUICK DISCONNECT COUPLING

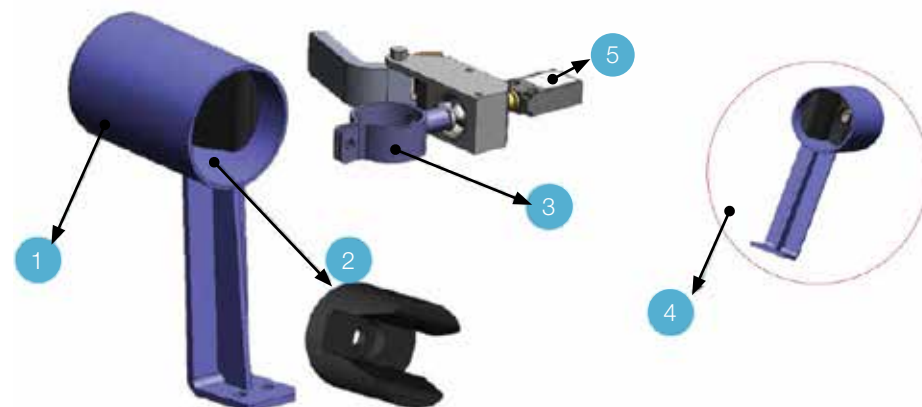
PART NO	DESCRIPTION
8733	Actuator 1 1/2" male BSPP
8732	Dry Break Coupler 1 1/2" female BSPP
8734	Dust Cap Suit Actuator



BALL & SOCKET OVERWING NOZZLE STOWAGE



ITEM NO	PART NO	DESCRIPTION
1	4600-03-01	Nozzle Stowage Cover
2	4600-03-02	Jet Selective Nozzle Stowage
3	4600-06-02	Interlock Bracket suit Liquip AVN Nozzle
4	4600-03-08	Nozzle Stowage Holder Assembly
5	XCWD21F0L5	Plunger Interlock Switch
	4600-06-07	Interlock Bracket suit Elaflex ZVF50 nozzle
	3500-15-01	Proximity Switch 12mm



NOZZLE SWIVELS



PART NO	DESCRIPTION
TS57-0026	Swivel Brass Nickel Plated 1" M + F BSPP
TS57-0059	Swivel Brass Nickel Plated 1 1/4" M + F BSPP
TS57-0058	Swivel Brass Nickel Plated 1 1/2" M + F BSPP
TS57-0054	Swivel Brass Nickel Plated 2" M + F BSPP
TS57-0005	Swivel Brass Nickel Plated 2 1/2" M + F BSPP

- CARTER BOTTOM LOAD ADAPTORS
- CARTER IN LINE PRESSURE CONTROL VALVE
- CARTER HYDRANT PIT COUPLER
- CARTER HYDRANT PIT VALVES
- FOOT VALVES
- APOLLO DEADMAN BALL VALVES
- HYDRANT PIT BOX
- CROCODILE INPUT COUPLER LIFTER
- PRECISION REGULATOR
- PRESSURE RELIEF VALVE
- SHOW FLOW
- CHECK VALVES
- AXIAL VALVES
- TANK SUMP DRAIN & VALVE



CARTER BOTTOM LOAD ADAPTORS

PART NO	DESCRIPTION
61528-B	Bottom load adaptor c/w plastic dust cap with 3" TTMA flange
61529Z	Modular fueling adaptor in accordance with MS24484-2
61531	Metal pressure dust cap
64040B	Bottom load adaptor c/w plastic dust cap with 3" ANSI flange
6958BCH	Bottom load adaptor c/w plastic dust cap with 2 1/2" female BSPP outlet



CARTER IN LINE PRESSURE CONTROL VALVE

PART NO	DESCRIPTION
64500	Carter 3" In Line Pressure Control Valve ANSI150 lb. flat face flanges
64510	Carter 4" In Line Pressure Control Valve ANSI150 lb. flat face flanges
64501	Carter 3" By-pass Control Valve ANSI150 lb. flat face flanges
64511	Carter 4" By-pass Control Valve ANSI150 lb. flat face flanges



CARTER HYDRANT PIT COUPLER

PART NO	DESCRIPTION
64910TY3N	Hydrant Pit Coupler 3rd edition with tall lower collar lifting handle, handle assembly at outlet port & 4" female BSPP quick disconnect
60532C	Carriage assembly suit 64910 coupler



CARTER HYDRANT PIT VALVES

PART NO	DESCRIPTION
60554D	Pit Valve with lanyard operated pilot valve for manual on/off control. Valve allows flow in the fueling direction only.
60554V	Pit Valve with air or fuel operated pilot valve for deadman control. Capable of bi-directional flow.
60554X	Pit Valve with simple valve connector to be used with air or fuel operated 64280 remote pilot valve actuators. Capable of bi-directional flow.
60554Y	Pit Valve with quick release lanyard with simple valve connector to be used with air or fuel operated 64280 remote pilot actuators. Capable of bi-directional flow.
60554Z	Pit Valve with air operated pilot valve with lanyard override for manual on/off control. Capable of bi-directional flow.
64280	Remote Pilot Valve Actuator



FOOT VALVES

PART NO	DESCRIPTION
89.00.05/B/F/V/E/LIQ	Pneumatic Bottom Valve 90 Degree 4" Pressure Balanced, With Outlet Square Flange, With Ss Filter, With Extra Pressure Relief Valve (6 Bar)
89.00.06/B/F/V/LIQ	Pneumatic Bottom Valve "T" 4" Pressure Balanced 2 Ways, With Overpressure Relief Valve

APOLLO DEADMAN BALL VALVE



PART NO	DESCRIPTION
8476	3/8" BSP S/S Construction
8477	1/2" BSP S/S Construction
8585	3/4" BSP S/S Construction
8584	1" BSP S/S Construction
8586	1 1/2" BSP S/S Construction
8590	2" BSP S/S Construction

N.B. NPT versions are available by special order



PRECISION REGULATOR

PART NO	DESCRIPTION
9059	Norgren adjustable precision regulator 0 - 10 Bar



CARTER UNISEX COUPLINGS

PART NO	DESCRIPTION
64319	Eaton Carter 2" Unisex Coupling - Non-Valved
64320	Eaton Carter 2" Unisex Coupling - Valved

Unisex couplings, as the name implies, are designed to mate with each other allowing for the connection of hose assemblies, regardless of the end fitting. Available in a valved (64320) and non-valved (64319) versions, both have various accessories and inlet options.

Features

- Unisex connection allows indiscriminate mating
- Interlock feature prevents disconnect ion of unit with ball valve open
- Pressure tight dust cap included on all units
- Dust seal incorporated between connected units — protects mating surfaces
- Units are easily repairable
- Tan colour standard, green optional



MANNTEK ALUMINIUM BALL VALVES

PART NO	DESCRIPTION
AHMB500P1001SR	Valve Ball 4" 2-Way Actuated S/R Al Manntek -No Flanges
AHMB400A1001CDA	Manntek B/V 3" 3-Way With Double Acting Actuator, 10bar
AHMB500A1001CDA	Valve Ball 4" 3-Way With Double Acting Actuator 10bar Manntek
AHMB400A1001C	Valve Ball 3" 3-Way Al Manntek -No Flanges 10bar
AH-3WBV	1 1/2" Bsp S/S Construction
AH-50-3WBV	Valve Ball 2" 3-Way Manntek



NON RETURN VALVES

PART NO	DESCRIPTION
NRV80	Aviation non return valve - 3" TTMA.



CROCODILE INPUT COUPLER LIFTER

PART NO	DESCRIPTION
6030-01-01	Crocodile Pit Coupler Lifter RH operation
6030-01-02	Crocodile Pit Coupler Lifter LH operation



PRESSURE RELIEF VALVE

PART NO	DESCRIPTION
PR-095	Pressure Relief Valve 1/2" S/S construction, set at 11 Bar, 1/2" MBSP inlet & FBSP outlet.

** Other sizes and set pressures available upon request.

3



SHOW FLOW

PART NO	DESCRIPTION
SFP-.500B-SS	Show Flow paddle style 1/2" S/S construction BSP ports.



CHECK VALVES

PART NO	DESCRIPTION
9561	Check Valve S/S 1/4" BSP set @ 1PSI
9561-10	Check Valve S/S 3/8" BSP set @ 1PSI
9561-12	Check Valve S/S 1/2" BSP set @ 1PSI



AXIAL VALVES

PART NO	DESCRIPTION
8509	Axial Valve N/O 3/4" BSP
8822	Axial Valve N/C 3/4" BSP
8445	Axial Valve N/O 3/8" BSP
ZZ0436	Axial Valve N/C 3/8" BSP
8722	Axial Valve Double Acting 2" BSP



TANK SUMP DRAIN & VALVE

PART NO	DESCRIPTION
ATS100	Aluminium Sump Drain Assembly
ITV1-AO	Air operated 1" Sump Drain Valve

GORMAN RUPP PUMPS
LC METERS
LC MECHANICAL REGISTER
LC PRESETS
LC STRAINERS
LC AIR ELIMINATORS
LC CHECK VALVES
LC PRESET VALVES
LC SPRING LOADED CHECK VALVES

4

METERS & PUMPS



GORMAN RUPP PUMPS

PART NO	DESCRIPTION
8425	Gorman Rupp 02F1-GR Self-priming 2" centrifugal pump
8426	Gorman Rupp 03H1-GR Self-priming 3" centrifugal pump

LIQUID CONTROLS PRESETS

ITEM NO	SIZE INCHES
1	4-Digit Preset Counter
2	5-Digit Preset Counter



*Consult MMK Solutions for more details.

LIQUID CONTROLS METERS

MODEL	SIZE INCHES	MAX FLOWRATE LPM	MAX PRESSURE KPA
M-5	1.5	227	1034
M-7	2	378	1034
M-10	2	567	1034
M-15	3	756	1034
M-25	3	1134	1034
M-30	4	1323	1034
M-40	4	1701	1034
M-60	4	2268	1034
M-80	6	3785	1034

LIQUID CONTROLS STRAINERS

STRAINER	METER
F7/FA7	M-7 and MA-7, 2"
F15/FA15	M15 and MA15, 3"
F30	M30, 4"



* High Capacity are available in 2" and 3" Meters (M7 through M25).

*Consult MMK Solutions for more details.

LIQUID CONTROLS MECHANICAL REGISTER

PART NO	DESCRIPTION
D1147	Register 100 grad right hand w - no gear plate fitted



*Consult MMK Solutions for more details.



LIQUID CONTROLS AIR ELIMINATORS

ITEM NO	DESCRIPTION
1	Optical Air Eliminator
2	Steel Air Eliminator
3	Air and Vapor Eliminator
4	Bulk Plant Air Eliminator

*Consult MMK Solutions for more details.



K-SERIES

LIQUID CONTROLS CHECK VALVES

VALVE	METER	MAX FLOWRATE	MAX PRESSURE
K-7	M-5 & M-7 - 1½" & 2"	150 gpm (568 lpm)	150 psi (10.5 bar)
K-15	M-15 & M-25 - 3"	300 gpm (1,136 lpm)	150 psi (10.5 bar)
K-30	M-30 - 3"	300 gpm (1,136 lpm)	150 psi (10.5 bar)

*Consult MMK Solutions for more details.



LIQUID CONTROLS PRESET VALVES

VALVE	METER	MAX FLOWRATE
V7 Valves	M-5, M-7 and M-10 Meters	150 psi (10.5 bar)
V15 Valves	M-15 Meter	150 psi (10.5 bar)
V30 Valves	M-30 and M-40 Meters	150 psi (10.5 bar)

*Consult MMK Solutions for more details.



LIQUID CONTROLS SPRING LOADED CHECK VALVES

MODEL	FLOWMETER
41370	M-15, 3"
41380	M-30, 4"
502020	M-7 & M-10, 2"
46743	M-5, 1½"
49896	M-15 & M-25, 3"
501267	MA-4

*Consult MMK Solutions for more details.

ALJAC CLOSED CIRCUIT SAMPLERS
SAMPLE CONTAINERS
SAMPLE BOX
AIR ALIMINATORS
KOLOR KUT PASTES
FUEL TESTING
HYDROMETERS & THERMOMETERS
SAMPLE ADAPTORS



ALJAC CLOSED CIRCUIT SAMPLERS

PART NO	DESCRIPTION
ALJAC4	ALJAC 4 litre sampler with BSPP threads c/w external Shell Water Detector fitting
6007233253	Air powered internal SWD to retrofit to existing 4 ltr. Samplers (includes sampler lid)
6007263021	Aljac 7 Litre basic sampler with NPT threads
6007263001	Aljac 20 Litre basic sampler with NPT threads
6007333201	Aljac 80 Litre basic sampler with flanged inlet & outlet connections
6007333301	Aljac 160 Litre basic sampler with flanged inlet & outlet connections
2000-05-10	Zinc Plated Mesh guard to suit 4 Litre sampler

*Other options available to add to above basic assemblies - consult MMK Solutions for more details.



SAMPLE CONTAINERS

PART NO	DESCRIPTION
0902000050	1 litre Sample Retention Container Heavy Duty tinplate/steel construction epoxy lined
0902000060	5 litre Sample Retention Container Heavy Duty tinplate/steel construction epoxy lined



SAMPLE BOX

PART NO	DESCRIPTION
TC251566	Black powder coated stainless steel sample box 40 x 40 x 20 cm with 1 x Euroinox lock



AIR ELIMINATOR

PART NO	DESCRIPTION
8484	Armstrong 11AV air eliminator set at 178psi 3/4" x 1/2" BSP

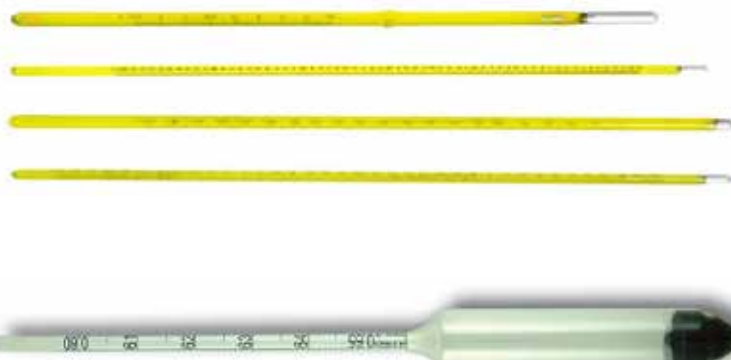
KOLOR KUT PASTE



PART NO	DESCRIPTION
0905013221	Kolor Kut 2.25 oz. tub fuel finding (ullage) paste
0905003908	Kolor Kut 3 oz. tube water finding paste

HYDROMETERS & THERMOMETERS

TYPE	RANGE	INCREMENTS	LENGTH	COMMENTS	PART NO
Hydrometer BS718 M50SP @ 15 degC	SG 0.775-0.825	SG 0.001	270mm	Jet A1	0902000090
Hydrometer BS718 M50SP @ 15 degC	SG 0.700-0.750	SG 0.001	270mm	Avgas	0902000091
Hydrometer BS718 M50SP @ 15 degC	SG 0.750-0.800	SG 0.001	270mm		0902000092
Hydrometer BS718 M50SP @ 15 degC	SG 0.800-0.850	SG 0.001	270mm		0902000093
Hydrometer BS718 M50SP @ 15 degC	SG 0.850-0.900	SG 0.001	270mm		0902000094
Thermometer ASTM12C / IP64C	-20 to +102 degC	0.2 degC	425mm	Mercury Filled	0902000080
Thermometer ASTM12C / IP64C	-20 to +102 degC	0.2 degC	425mm	Blue Spirit Filled	0902000080A
Thermometer IP49C	-15 to +40 degC	0.5 degC	315mm	Mercury Filled	0902000081
Thermometer IP49C	-15 to +40 degC	0.5 degC	315mm	Blue Spirit Filled	0902000081A
Thermometer IP53C	0 to +80 degC	0.5 degC	315mm	Mercury Filled	09020000100
Thermometer IP53C	0 to +80 degC	0.5 degC	315mm	Blue Spirit Filled	09020000100A
Thermometer IP63C	-8 to +32 degC	0.1 degC	384mm	Mercury Filled	0902000087
Thermometer IP39C	-1 to +38 degC	0.1 degC	450mm	Mercury Filled	0902000084
Thermometer Protective Sheat	Chromium plated Brass construction, suitable for ASTM12/IP64C				0902000085
Thermometer Protective Sheat	Chromium plated Brass construction, suitable for IP64C and IP53C				0902000086



SAMPLE ADAPTORS

PART NO	DESCRIPTION
MSA011V	Liquip sample adaptor 3/8" BSPP x 1/2" BSPP
MSA022	Liquip sample adaptor 3/8" NPT x 1/2" BSPP
GTP-1206-A	Gammon sample adaptor 3/8" BSPP x 1/2" BSPP
MSF100	Mating adaptor to 3/8" hoesetail
AT104	Adaptor probe assembly

FUEL TESTING

ITEM NO	PART NO	DESCRIPTION
1	M060	Shell Water Detector Capsules (box of 80)
2	M105	5ml. Nylon re-usable syringe
3	GTP-1983	100 membranes & 100 support pads
4	GTP-1986	48 plastic monitors, each with a pair of membrenes & support pad



DIFFERENTIAL PRESSURE GAUGES
PRESSURE GAUGES



DIFFERENTIAL PRESSURE GAUGES

PART NO	DESCRIPTION
8735	Gammon standard aluminium DP Gauge 0-30psi
8736	Gammon standard aluminium DP Gauge 0-15psi
GTP534PBF15A	Gammon aluminium DP Gauge c/w front push button 0-15psi
GTP534PBF30A	Gammon aluminium DP Gauge c/w front push button 0-30psi
GTP534PBPH30A	Gammon aluminium DP Gauge c/w push button & peak hold 0-30psi
GTP-8980	Gammon DP gauge with proximity switch for differential pressure control (many variants available - consult our sales team for more information)
SC-5150-15E	Schultz aluminium DP Gauge c/w 1/4" 3-way test valve 0-15psi
SC-5150-30F	Schultz aluminium DP Gauge c/w 1/4" 3-way test valve 0-30psi
SC-5150-24VDC	Schultz DP Gauge with proximity switch for differential pressure control (many variants available - consult our sales team for more information)



PRESSURE GAUGES

PART NO	DESCRIPTION
PGPMSS1000	Panel mount pressure gauge 100mm, S/S, liquid filled, 0-1000kpa (dual scale) 1/4" MBSPT lower back entry
PGPMSS1600	Panel mount pressure gauge 100mm, S/S, liquid filled, 0-1600kpa (dual scale) 1/4" MBSPT lower back entry
10000-09-10	Panel mount pressure gauge 63mm, S/S, liquid filled, 0-250 Bar (dual scale), 1/4", MBSP rear entry
10000-09-13	Panel mount pressure gauge 63mm, S/S, liquid filled, 0-10 Bar (dual scale), 1/4", MBSP rear entry
10000-09-15	Panel mount pressure gauge 63mm, S/S, liquid filled, 0-250 Bar (dual scale), 1/4", MBSP bottom entry

** Other sizes and pressures available upon request

OVERFILL PROTECTION



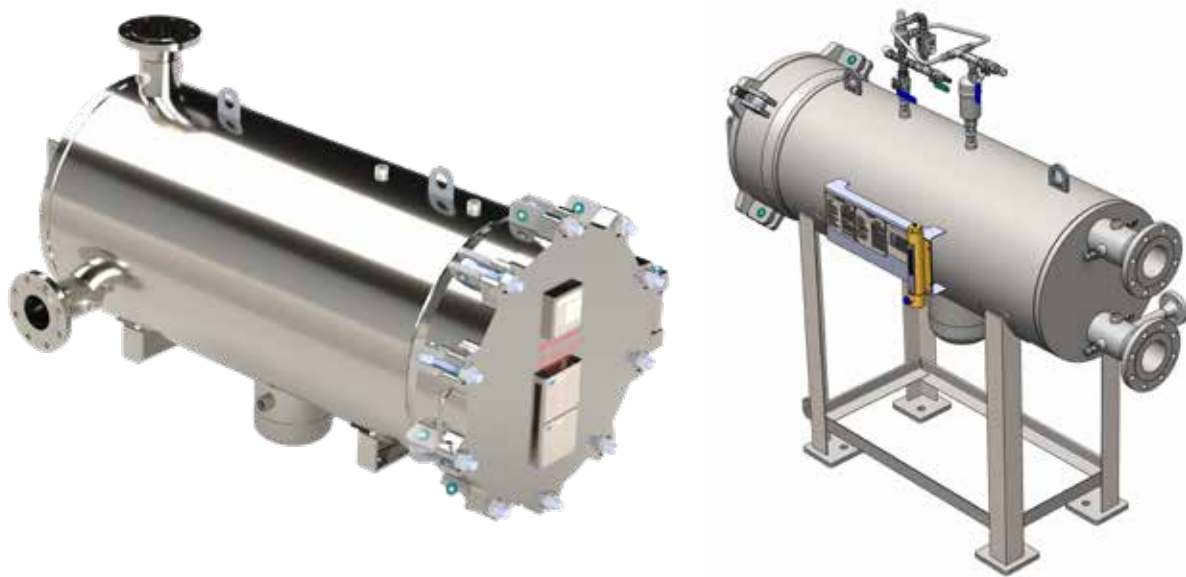
OVERFILL PROTECTION

ITEM NO	PART NO	DESCRIPTION
	FILLGUARD	Fill-Guard box with 5 x M20 entry ports. Suitable for use on tankers up to 2 compartments. Box comes complete with suitable Ex d glands and plugs
1	FILLGUARD5	Fill-Guard box with 9 x M20 entry ports. Suitable for use on tankers up to 5 compartments. Box comes complete with suitable Ex d glands and plugs
2	LDP202	Liquip 2 wire overfill sensor probe
3	LDP202Z	Liquip 2 wire overfill sensor probe c/w standard extension and O-ring
4	PJB500	Probe Junction Box to 2" MBSPP
5	VOH200-5	Probe Junction Box to suit for mounting to manholes

The Fill-Guard operates using 2-wire electronic liquid level probes / sensors. The loading is stopped when the probe is wet, the signal is an input to the tank control system to stop fuel flow & typically also sound an alarm. The Fill-Guard can be used as a primary system where it shuts the foot valves or as a secondary system in which it shuts the actuated inlet (loading) ball-valve and typically activates an audible alarm and red Overfill Warning light if the in-tank probe becomes "wet" (overfill situation).

The box is an Aluminium Enclosure, RAL 7035 Epoxy Coated 304 x 204 x 218mm.
Rated Ex d [ja Ga] IIB + H2 Gb Ex tb [ja Da] IIIC Db IECex TSA 06.0011.
The unit has 4 inputs and 4 outputs so you can do up to 4 probes with pre-check.

FILTER MONITOR VESSELS
VF SERIES FILTER HOUSINGS
FACET FILTRATION



FILTER VESSELS

PART NO	DESCRIPTION
F-50003-00RHS	Stainless Steel Filter Water Separator (HCS-743-240)- suitable for max. flow rate of 3,880 l/min
F-50033-00LHS	Stainless Steel Filter Water Separator (HCS-643-236)- suitable for max. flow rate of 3,308 l/min
F-50032-00	Stainless Steel Filter Water Separator (HCS-643-236)- suitable for max. flow rate of 2,220 l/min
F-50030-00	Stainless Steel Filter Water Separator (HCS-343-133)- suitable for max. flow rate of 1,260 l/min
F-50009-00	Stainless Steel Filter Water Separator (HCS-243-136)- suitable for max. flow rate of 1,122 l/min
F-50008-00	Stainless Steel Filter Water Separator (HCS-643-236)- suitable for max. flow rate of 530 l/min
F-50017-00	Stainless Steel Filter Water Separator (HCS-216-1318)- suitable for max. flow rate of 250 l/min



VF SERIES FILTER HOUSING

PART NO	DESCRIPTION
VF-21SB	Housing only
VF-21SB-PG	Housing w/ Direct Reading Differential Pressure Gauge
VF-21SB-PGS	Housing w/ Direct Reading Differential Pressure Gauge & Sight Glass
VF-21SB-PGWP	Housing w/ Direct Reading Differential Pressure Gauge & 3/4" Coupling for Water Probe
VF-21SB-S	Housing w/ Sight Glass
VF-21SB-WP	Housing w/ 3/4" Coupling for Water Probe
VF-22SB	Housing only
VF-22SB-PG	Housing w/ Direct Reading Differential Pressure Gauge
VF-22SB-PGS	Housing w/ Direct Reading Differential Pressure Gauge & Sight Glass
VF-22SB-PGWP	Housing w/ Direct Reading Differential Pressure Gauge & 3/4" Coupling for Water Probe
VF-22SB-S	Housing w/ Sight Glass
VF-22SB-WP	Housing w/ 3/4" Coupling for Water Probe
644160	Mounting Bracket
644964	Grounding Cable



The best filtration products in the aviation market

Innovation, expertise and knowledge have led us to develop the most advanced technologies which have set the standard in the aviation market.

We partner with our customers to understand their challenges and provide valuable solutions that reduce costs, improve process performance and reduce environmental impact.



Prefilters

- Designed to effectively remove solid contaminants from fuels.
- Latest EI approvals for both Commercial and Military requirements.
- Crushable & Incinerable coreless elements.
- Interchangeable with all manufacturers aviation housings.

Microfilters

- A single pass through these filters allows clean product, protecting the cartridges of the vessels installed downstream.
- EI 1596 Design & Construction
- Vertical & Horizontal configurations available.
- Built to ASME Code, S. VIII, stamped and certified or CE marked.



Coalescer & Separators

- Designed for maximum coalescence and Ultra-fine solids removal.
- Latest EI approvals for both Commercial and Military requirements.
- Synthetic & Telfon coated screen separators.
- Interchangeable with all manufacturers aviation housings.



Filter water Separators

- Vertical and Horizontal configurations available.
- Qualified to 6th Edition of EL 1581, Categories C, M & M100, Types S & S-LW.
- Designed to filter solids and separate water from jet fuel.
- Easy service & reduced maintenance costs.



Monitor Cartridges

- Designed for maximum water absorption, ultra-fine solids removal and system shutdown protection.
- Latest EI approvals for Commercial and Military requirements.
- Interchangeable with all manufacturers aviation housings.



Monitor Filters

- The Facet Model FG monitor housings continually check the entire flow of fuel, for water or solids contamination, assuring clean, dry fuel.
- Shutdown the systems flow when hit with a localized slug of water.
- Welded carbon steel, stainless steel, aluminum and cast aluminium construction.



Clay Elements

- Designed to protect fuel filtration systems and Jet fuel by removing surfacants, colour and additives.
- Bag & Canister type elements.
- Interchangeable with all manufacturers aviation housings.



Clay Filters

- Facet F Series provide a complete absorptive system that prolongs the lifespan of the filter water separators cartridges installed downstream.
- Removable cartridge mounting post.
- Welded carbon steel construction.



Haypack Separators

- Designed for removal of heavy amounts of water and particulate from jet fuel.
- Variety of medias to meet flow, contaminant and effluent requirements.
- Interchangeable with all manufacturers of aviation housings.



Single-Stage Coalescers

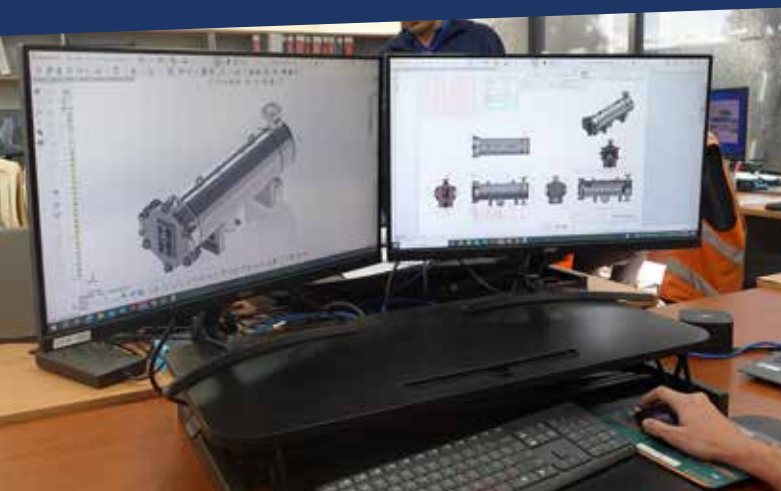
- Facet HP housings are horizontal, cylindrically shaped vessels designed to protect filtration systems from gross amounts of water and solids.
- No internal moving parts, thereby reduced maintenance costs.



Multipurpose Housings

- Facet Fuel-Gard® VF-21SB/22SB series are versatile, compact, light-weight housings that may be used as microfilters, filter water separators or monitor filters depending on the cartridges installed.
- Small footprint.
- Swing bolt quick open closure.





CONTINUITY TESTER
LARGE DIGIT DISPLAY
BATTERY ISOLATION SWITCH
DEADMAN HANDLE ASSEMBLIES
WORK LIGHTS
BEACON/STROBE
LED INDICATOR LIGHTS
EMERGENCY STOP BUTTONS
ELECTRIC REWIND HOSE REEELS
ELECTRONIC REGISTRATION

ELECTRICAL EQUIPMENT

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CONTINUITY TESTER

PART NO	DESCRIPTION
0100400180	Aljac Continuity Tester for static reels set at 25 Ohms



LARGE DIGIT DISPLAY

PART NO	DESCRIPTION
LFD-6	ISOIL LED Large Digit Display



BATTERY ISOLATION SWITCH

PART NO	DESCRIPTION
TSW24K	Switch Baxter 24V Master Switch Lockable
TSW24VEC	Battery Isolator T-Switch 24V POS/NEG Elec OP
TSW12PK	Switch Baxter 12V POS/POS Elec/Mech Lockable
TSW12K	Battery Master Switch Kit 12V 500AMP
TSW24VI	Battery Isolator T-Switch 24V POS/NEG Elec/Mech OP

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DEADMAN HANDLE ASSEMBLIES

PART NO	DESCRIPTION
8422	Complete assembly 1 (ALUMINIUM Deadman c/w cable)
GTP-8392-Z-50	Complete assembly 1 (Deadman c/w cable)
DMH100	Aluminium Deadman handle ONLY
GTP-8392B	Plastic Deadman handle ONLY
8693	Cable orange 3.4 mtrs
9097	Cable plug Male sealed 2W
889DM4DCSH	Cable plug 4 pin (new version)



WORK LIGHTS

PART NO	DESCRIPTION
3000-06-03	Zone 1 & 2 explosion proof 24V wide angle beam work light assembly c/w swiveling bracketry. Conduit Port Size: M25 Colour: Cool White Cover/Lens: Reinforced Glass IP Rating: IP67 Length: 323mm
EF1A11WB-M25	As above but light only - no bracketry
EF1A11WB-M25	Zone 1 & 2 explosion proof 24V narrow angle beam work light Conduit Port Size: M25 Colour: Cool White Cover/Lens: Reinforced Glass IP Rating: IP67 Length: 323mm
EVML5024D	Light Flood Lowbay 15w-Led 24v Dc Rear 1458lm Ex1/2/21/22



BEACON/STROBE

PART NO	DESCRIPTION
ESSG7711A	Zone 1 & 2 explosion proof 24V 240 Ma LED Beacon / Strobe Light assembly. IP66 rating Construction: Corrosion proof Glass Reinforced Polyester enclosure Colour: Red base & Amber lens

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LED INDICATOR LIGHTS

PART NO	DESCRIPTION
K30LIRXXPQP	30mm Red LED Indicator, 4 pin integral M12 QD
K50LIGXXPQ	50mm Green LED Indicator, 4 pin integral M12 QD
K50LIRXXPQ	50mm Red LED Indicator, 4 pin integral M12 QD
K50LIYXXPQ	50mm Amber LED Indicator, 4 pin integral M12 QD
K50LIWXXPQ	50mm White LED Indicator, 4 pin integral M12 QD

EMERGENCY STOP BUTTONS



PART NO	DESCRIPTION
8884	Switch emergency shut down no/nc Red
8884-Y	Switch emergency shut down no/nc Yellow
HW1B-V4R	Emergency stop push button switch 40mm. Round head pushlock turn reset operator. Colour: Red
HW1B-V4Y	Emergency stop push button switch 40mm. Round head pushlock turn reset operator. Colour: Yellow



ELECTRIC REWIND HOSE REELS

PART NO	DESCRIPTION
CUSTOM	Cartwheel Electric Hose Reels
CUSTOM	Drum Electric Hose Reels

MMK Solutions custom build electric rewind hose reels for static applications to suit your requirements. Our reels are designed for ease of operation in a dangerous environment.

Available in either cartwheel or drum style. All units utilize a variable speed drive which ensures greater flexibility in rewind speed control and a ramp up feature allows fine control is available over the final portion of the hoses journey by toggling the switch to "inch" he hose in. Drive is provided by a 3 phase, 1.1Kw, Class 1, Zone 1 explosion proof ex-d electric motor and runs through a single-to-three phase variable speed inverter.

On our drum style reels power is transmitted to the reel by an anti-static timing belt. This eliminates the need for a chain drive, therefore no metal to metal contact is present. This eliminates the possibility of a spark caused by chain lash. To minimize the possibility of catching fingers in the belt drive, the unit may be purchased specifying either a hinged full cover or a belt guard. The hinged cover features a polycarbonate window in the top, and hose roller guides in the front. It covers the entire unit when lowered. The belt guard is a removable profiled huard designed to sit over the driven sprockets and timing belt.

Consult our sales department for more information and specify required hose size and length and we will provide a solution to suit.

ELECTRONIC REGISTRATION

PART NO	DESCRIPTION
1	LCR.iQ
2	LECTROCOUNT® LCR®II
3	MULTILOAD II® SMP
4	LECTROCOUNT® LCR®600
5	MASTERLOADX.iQ
6	DFV100



*Consult MMK Solutions for more details.

ACCESSORIES

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- PLATFORM LADDERS
- EXPANSION JOINTS
- SPILL MANAGEMENT
- STAINLESS STEEL BUCKET
- LOCK WIRE & LEAD SEALS
- SWIVEL 4" STAINLESS STEEL FLANGED
- PLATFORM WAND
- STATIC & LANYARD REELS & ACCESSORIES



PLATFORM LADDERS

PART NO	DESCRIPTION
PS5-2	Ladamax PS5/2 Prem P/Step 1 Step + Platform Punchlock C/W Kickplate
PS6-3	Ladamaz PS03PL Prem 3' P/Step 2 Step + 1 Platform Punchlock C/W Kickplate
PS7-4	Ladder Ladamax PS0\$PL Prem 4' P/Step
PS9-6	Ladamax PS06PL Prem 6' P/Step 5 Step + 1 Platform Punchlock C/W Kickplate



EXPANSION JOINTS

PART NO	DESCRIPTION
ERV50	50mm DN expansion joint 8 hole TW flange of aluminium
ERV80	80mm DN expansion joint 8 hole TW flange of aluminium
ERV100	100mm DN expansion joint 8 hole TW flange of aluminium



SPILL MANAGEMENT

PART NO	DESCRIPTION
CEP-P100	Absorbent sheet 17" x 19" x 3/8"
8835	Absorbent sock 3" x 48"
8790	Zippered bag truck kit containing socks and sheets (absorbs 28 litres)
JBFA65	Spill Kit Container
9107	Disposal Bag

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STAINLESS STEEL BUCKET

PART NO	DESCRIPTION
T/PP95483	S/S Bucket 12 ltr. capacity c/w handle, graduations in litres & static lead
0902000009	S/S Bucket 15 ltr. capacity c/w handle, graduations in litres, no cable nor clamp.



LOCK WIRE & LEAD SEALS



PART NO	DESCRIPTION
2094	Lead Seal
ZZ0610	1lb. 0.025" S/S sealing wire



9170



SR101



KK100



GTP-1101

GTP-1097S-1



SWIVEL 4" STAINLESS STEEL FLANGED

PART NO	DESCRIPTION
114587	4" S/S swivel flanged TTMA, Teflon trim.
SJF101L	Stainless Steel Flanged Swivel Joint – 100mm TTMA Flanges, Viton Main Seal

PLATFORM WAND

PART NO	DESCRIPTION
1500-02-01	Standard platform wand
3500-15-01	Proximity Switch 12mm
3500-15-02	Proximity Switch 18mm
ZZ0725	Flexi-Wand Rod style
749-7593	Siemen safety Switch suit Flexi-Wand



STATIC & LANYARD REELS & ACCESSORIES

PART NO	DESCRIPTION
SR202	Large diameter static reel c/w 30 mtrs yellow cable & brass clamp
LR205	Large diameter lanyard reel c/w 30 mtrs orange cable & dog clip
SR100-18	Yellow static cable (1,000mtr roll)
9457	Orange lanyard cable (300 mtr roll)
GTP-1097S-1	S/S Aircraft grounding plug
K-3943A	Pin receptacle
Static Clamps	Refer to image for available range



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