

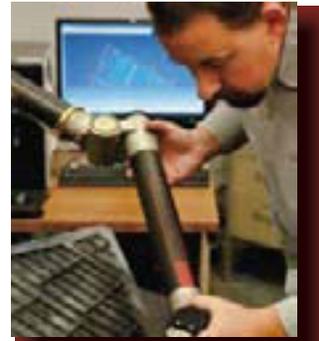
**ARVAN**<sup>inc</sup>  
Fly with the best





## A Tradition in Quality and Commitment to Service

Arvan is a manufacturing company specializing in fabricating Mechanical and Electrical Components and Assemblies for the Aircraft, Electronic, Microwave and Electrical Power Industries. Its capabilities include Compression and Injection Molding of Composite Materials, CNC Precision Machining, Sheet Metal and Assembly work. Arvan offers competitive pricing, 50 years industry experience, and an extensive AN, MS, NAS, BAC, LS, and DAC print library. All of this along with superior customer service and trained, qualified sales personnel. Arvan is committed to quality and service.



### PRODUCT LINE

**Pulleys:** Arvan is a QPL'd manufacturer of Military Standard and OEM Specified Aircraft Control Pulleys.

**Terminal Blocks:** Arvan manufactures a full line of Military Standard Terminal Blocks, Covers and Accessories for electrical power distribution and termination.

**Terminal Lugs:** Arvan is a QPL'd manufacturer of Military Standard Aluminum Lugs for termination of aluminum aircraft wire.

**Compression Molding:** Our compression presses, from 100 to 3,300 tons, are capable of molding parts up to 5'x 8'. Our Engineering Department has state of the art CATIA V5 software to engage in Concurrent Engineering in a DPD environment. Our CMM'S are capable of inspecting parts up to 9' diameter sphere.

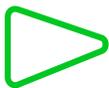
**Injection Molding:** Our 55 ton to 300 ton presses will mold various engineering plastics such as ULTEM, PEEK and NYLON.

### Major Customers

- BOEING
- LOCKHEED
- HONEYWELL
- ALIENA
- MCDONNELL DOUGLAS
- NORTHROP
- HAMILTON SUNDSTRAND
- EMBRAER
- AM GENERAL
- SPIRIT AEROSYSTEMS
- BOMBARDIER
- RAYTHEON
- KAWASAKI HEAVY IND.
- MITSUBISHI HEAVY IND.

**MANUFACTURERS AND DISTRIBUTORS OF CUSTOM MOLDING:**  
**AIRCRAFT CONTROL PULLEYS:**  
**ENGINEERING**  
**TERMINAL BOARDS AND ACCESSORIES:**  
**ELECTRICAL TERMINAL BOARDS AND ACCESSORIES:**

INJECTION MOLDING • COMPRESSION MOLDING • TRANSFER MOLDING • THERMOSET • THERMOPLASTIC  
 BOEING • MCDONNELL • NORTHROP • LOCKHEED • AN, MS, NAS  
 CAD/CAM • TOOL DESIGN • CATIA V5  
 MANUFACTURER • AN, MS, NAS • MIL-M-19833 • MIL-P-25518 • MIL-T-55164  
 AN 3435 • AN 3436 • MS 3373 • MS 18029 • MS 25045 • MS 25046 • MS 27212 • MS 28934 • NAS 1063 • NAS 1066 • NAS 1093  
 ALL MIL-T-55164 TERMINAL BOARDS



# Precision Aircraft Control Pulleys

Arvan's engineers are dedicated to providing the most innovative technology possible. In the process of production we are continually developing and testing new components as well as extending the limits of performance. Thus every pulley produced embodies many built-in innovations that make a difference, giving Arvan clients the leading edge.

Arvan's CAD/CAM computer predicts the maximum deflection to determine the optimal cross section, grooving and bearing size of each new pulley under severe loading conditions.

## 707, 727, 737, 747, 757, 767, 777, 787 AND BEYOND

	MACHINE OR MOLDED	MOLDED OR ALUMINUM	MACHINED SINGLE GROOVE	MACHINED DUAL GROOVE
BOEING	BACP30M1A BACP30M-2 BACP30M-3 BACP30M-4 BACP30M-5 BACP30M-6 BACP30F1 THRU F12	ALUMINUM: BACP30F1A THRU F12A BACP30C1A	BACP30K1S BACP30K2S BACP30K3S BACP30K4S BACP30K5S BACP30K6S BACP30K7S	BACP30K1D BACP30K2D BACP30K3D BACP30K4D BACP30K5D BACP30K6D

## DC8, DC9, DC10, MD80, MD90, MD11, C17 AND BEYOND

	AP SERIES: ALUMINUM (APA) WITH TIRE MOLDED (APM), MACHINED (APS)	1969 SERIES: ALUMINUM, ALUMINUM WITH TIRE, MOLDED		
MCDONNELL DOUGLAS	APA 3-5-77	APM 2-5-50	1969-124	1969-141
	APA 3-5-106	APM 2-5-54	1969-130	1969-143
	APA 4-5-98	APM 3-10-68	1969-132	1969-144
	APA 4-6-106	APM 3-8-90	1969-134	1969-145
	APA 5-6-132	AVS-4 (1969-4)	1969-135	1969-163
	APA 6-8-95	AVS-7 (1969-7)	1969-136	1969-164
	APA 6-8-152	AVS-10 (1969-10)	1969-137	1969-166
		D4-25TBP	1969-138	1969-231
		D7-50TA (ALUM.)	1969-139	1969-235

### MILITARY STANDARD

MS 20219  
MS 20220  
MS 20221  
MS 24566

### MCDONNELL DOUGLAS

APA  
APM  
1969

### BOEING

BACP30M  
BACP30F  
BACP30K

### LOCKHEED

LS10179  
LS10180  
LS10181



# Standard Aircraft Control Pulleys with Frictionless Ball Bearings

	STANDARD PULLEYS, SHEAVE MATERIAL						Cable Size Nom. In.	A Dia. in.	B Dia. in.	C Dia. in., Ref.	D Dia. in.	E in.	Wt. Max Lb. MS. Pulleys	Bearing	PERFORMANCE								
	Military Standard, Composite <sup>1</sup>	Military Standard, Aluminum <sup>1</sup>	Boeing Standard, Composite <sup>2</sup>	Boeing Standard, Aluminum <sup>2</sup>	Lockheed Standard, Composite	Lockheed Standard, Aluminum									Allowable Limit Load On Pulleys lbs.	Max. Limit Load On Cable Indep. Of Wrap Angle, lbs.		Flange Strength Load - Min. lbs.					
Secondary Controls	MS20219-1	MS20219-A1	BACP30F1	BACP30F1A	-	LS10179-A1	1/16	1.317 1.307	1.005 .995	.423	.2500 .2495	.438	.058	P4K	480	1/16	3/32	75					
	MS20219-2	MS20219-A2	BACP30F2	BACP30F2A	LS10179-2	LS10179-A2		1.755 1.745	1.443 1.433	.423	.2500 .2495												
	MS20219-3	MS20219-A3	BACP30F3	BACP30F3A	LS10179-3	LS10179-A3	and	.769	.6250 .6245	.433	.096	P10K	920	307	460								
	MS20219-4	MS20219-A4	BACP30F4	BACP30F4A	LS10179-4	LS10179-A4										3/32	2.630 2.620		2.317 2.307	.423	.2500 .2495	.110	P4K
	MS20219-5	MS20219-A5	BACP30F5	BACP30F5A	LS10179-5	LS10179-A5	.769	.6250 .6245	.423	.2500 .2495	.125	P10K											
Primary Controls	MS20220-1	MS20220-A1	BACP30F6	BACP30F6A	LS10180-1	LS10180-A1	1/8	1.755 1.745	1.255 1.245	.455			.3125 .3120	.625 .620	.065	P5K	500	1/8	5/32	3/16			
	MS20220-2	MS20220-A2	BACP30F7	BACP30F7A	LS10180-2	LS10180-A2	5/32	3.005 2.995	2.505 2.495	.490	.260	PD5K	1680								830	1040	1250
	MS20220-3	MS20220-A3	BACP30F8	BACP30F8A	LS10180-3	LS10180-A3	and	4.255 4.245	3.755 3.745														
	MS20220-4	MS20220-A4	BACP30F9	BACP30F9A	LS10180-4	LS10180-A4	5.505 5.495	5.005 4.995	3/16	.165	PD5K	2800	3/16								7/32	1/4	
Heavy Duty Controls	-	MS20221-A1	BACP30F10	BACP30F10A	LS10181-1	LS10181-A1	3/16	2.630 2.620						2.005 1.995	.770 .768	.5000 .4995	.750 .745	.450	P8	4900			2620
	MS20221-2	MS20221-A2	BACP30F11	BACP30F11A	LS10181-2	LS10181-A2	7/32	4.130 4.120	3.505 3.495	.680	P8	7000											
	MS20221-3	MS20221-A3	BACP30F12	BACP30F12A	LS10181-3	LS10181-A3	1/4	5.630 5.620	5.005 4.995														

**EQUIVALENTS**

MS20219 = AN219 = NAS376  
 MS20220 = AN220 = NAS377  
 MS20221 = AN221 = NAS378  
 MS20219-A1 = NAS530

**DESIGN CONSIDERATIONS:**

**1) TEMPERATURE LIMITS DEPENDING ON GREASE**

MIL-PRF-23827: -65° F to +250° F  
 MIL-PRF-81322: -65° F to +350° F

**2) SHEAVE MATERIAL**

Metal: Aluminum 2024-T351 Aluminum Alloy Per QQ-A-225/6 or AMS 4037. Non Metallic: Molded Composite.

**3) FINISH:**

Aluminum sheaves anodized per MIL-A-8625 Type II

**4) BEARINGS:**

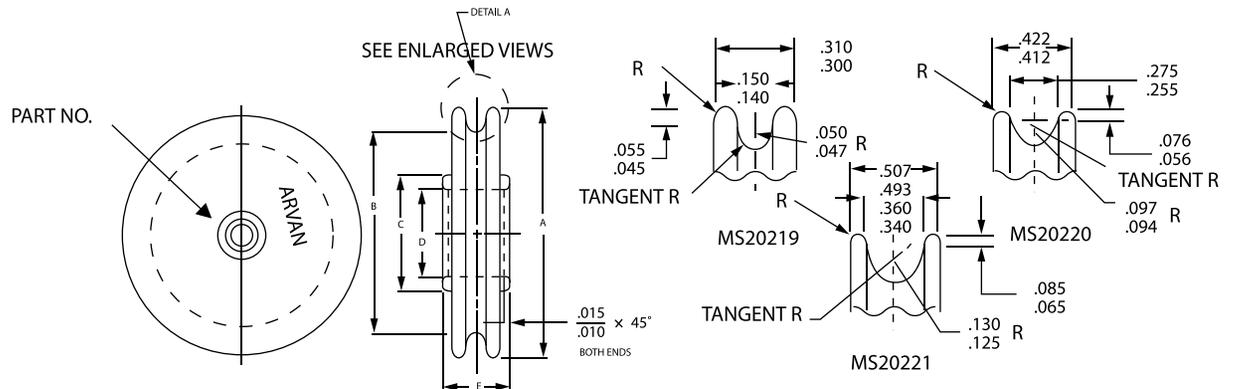
Conform to AS-7949

**5) LUBRICANT:**

Boeing Pulleys: MIL-PRF-23827 & BMS3-33  
 All Others: MIL-PRF-81322 or MIL-PRF-23827  
 Douglas Pulleys: MIL-PRF-81322

<sup>1</sup> Requires QPL-conformance by manufacturer. Arvan certification available upon request.  
<sup>2</sup> Requires FAA-PMA status.

Arvan approval numbers:  
 PQ1915NM - McDonnell Douglas  
 PQ1079NM - Boeing



**Major Customers**

Boeing  
 McDonnell Douglas

Lockheed

Northrop  
 Spirit Aerosystems

Honeywell

Hamilton Sundstrand  
 Bombardier

Aliena

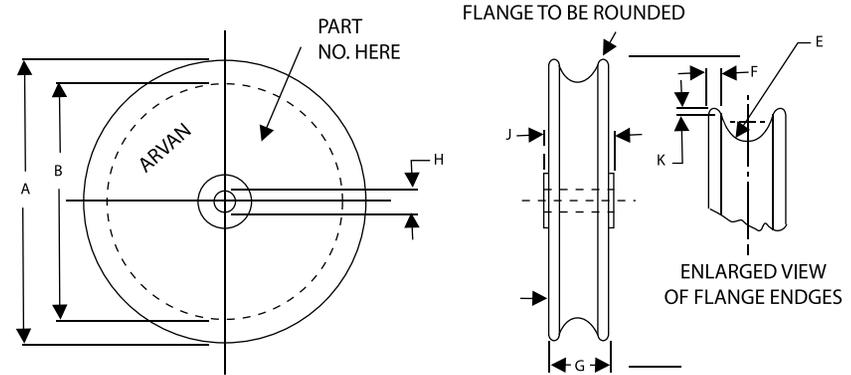
Embraer  
 Raytheon

AM General

Kawasaki Heavy Ind.  
 Mitsubishi Heavy Ind.



- MATERIAL, SHEAVE**  
 Non-Metallic: Molded Nylon Composite  
 Metallic: 2024 T351 QQ-A-225/6 Aluminum Alloy.
- BEARINGS:** BAC, MS, AN, LS Series conform to AS-7949,
- LUBRICANT:** Boeing; MIL-PRF-23827 & BMS3-33  
 All Others: MIL-G-81322  
 Temp: -65°F to +250°F
- LS and MS Series meet MIL-DTL-7034 Spec.**  
 Boeing & Douglas series meet BACP30M AND BACP30MF Spec.

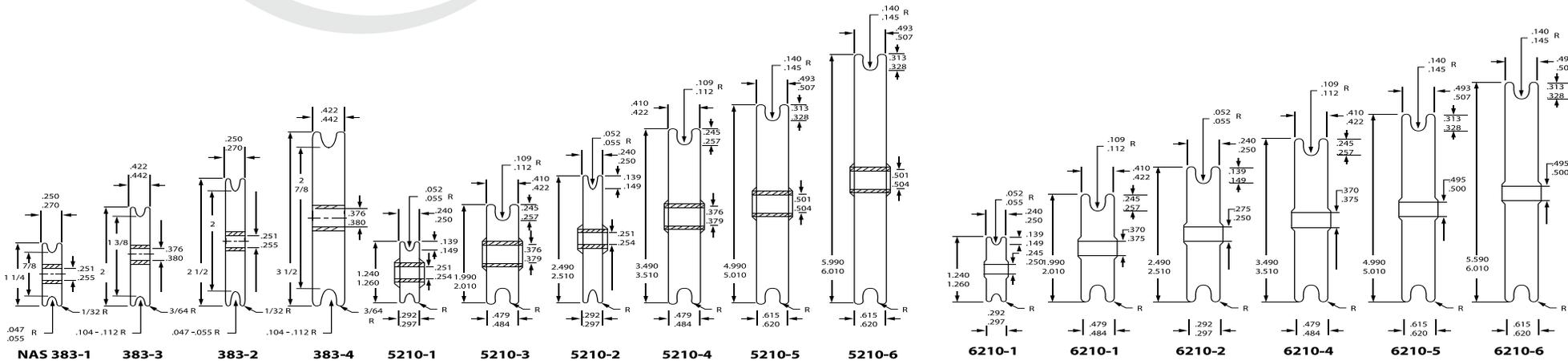


STANDARD PULLEYS, SHEAVE MATERIAL								A	B	E	F	G	H	J	K	Pulley Weight	Maximum Allowable Design Load	
Military Standard, Composite <sup>1</sup>	Boeing Standard, Molded Composite <sup>2</sup>	Boeing Standard, Aluminum <sup>2</sup>	Arvan's 4000 Series, Composite	Arvan's MXB Series, Aluminum	Arvan's High Temp.	Arvan's 7000 Series, Composite	Bearing Size	Cable Size	+.000 -.010	+.000 -.010	Rad	(b)	+0.000 -0.005 Dia.	+0.000 -.005	±.005	Max. Lb.	Load Lb.	
MS24566-1B	BACP30F13	BACP30F13A	4210-1	M1B	M1BH	7210-1	KP3AK	1/16, 5/64, 3/32	1.250	.972	.052 +.003 -.000	.060±.005	2.50 +.000 -.010	.1900	.297	.040	.026	185
MS24566-2B	BACP30F14	BACP30F14A	4210-2	M2B	M2BH	7210-2	KP3K	1/16, 5/64, 3/32	2.500	2.222	.052 +.003 -.000	.060±.005	.250 +.000 -.010	.1900	.297	.040	.075	500
MS24566-3B	BACP30F15	BACP30F15A	4210-3	M3B	M3BH	7210-3	KP4K	1/8, 5/32, 3/16	2.000	1.510	.109 +.003 -.000	.086±.006	.422 +.000 -.012	.2500	.484	.086	.090	450(a)
MS24566-4B	BACP30F16	BACP30F16A	4210-4	M4B	M4BH	7210-4	KP4K	1/8, 5/32, 3/16	3.500	3.010	.109 +.003 -.000	.086±.006	.422 +.000 -.012	.2500	.484	.086	.200	1200
MS24566-5B	BACP30F17	BACP30F17A	4210-5	M5B	M5BH	7210-5	KP6	3/16, 7/32, 1/4	5.000	4.374	.140 +.005 -.000	.092±.007	.500±.007	.3750	.620	.092	.660	2000
MS24566-6B	BACP30F18	BACP30F18A	4210-6	M6B	M6BH	7210-6	KP6	3/16, 7/32, 1/4	6.000	5.375	.140 +.005 -.000	.092±.007	.500±.007	.3750	.620	.092	.660	2500

**NAS STANDARD PULLEYS**  
 Bearing: Oil Impregnated Bronze  
 Sheave: Molded Composite

**ARVAN'S 5000 SERIES PULLEYS**  
 Bearing: Dry Lubed Steel Busing  
 Sheave: Molded Composite

**ARVAN'S 6000 SERIES PULLEYS**  
 Bearing: None. Composite provides self lubrication.  
 Sheave: Molded Composite



# Terminal Blocks, Boards, Lugs, Insulators, Bus Bars

## Designed & manufactured to aerospace standards with the following features:

- Quality & performance proven
- Superior corrosion resistance in all operating environments
- Impact & abrasive tough
- Much lighter than any competitive product
- Can be used with or without cover assembly
- Several terminal stud quantity configurations available from stock
- Optional bus bars (jumpers) & terminal insulating strips available.
- Need special markings/ part numbers or company identifications?
- Custom configurations are possible
- Bulk packaging standard, individual skin pack for hang up display available

## Terminal Blocks

Arvan's terminal blocks are molded in high quality, dimensionally stable DAP thermoset. They consistently outperform most other engineering plastics in electrical use with excellent dielectric strength, even at high temperatures and in moist environments.

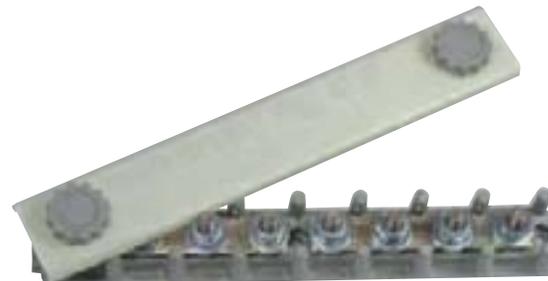
Arvan also offers extensive services and custom molding of electronic and industrial components tailored to customers' requirements. With its advanced equipment, over 25 years of experience in transfer, compression and injection molding, thermoforming and its strong engineering team, Arvan is prepared to fulfill your specific molding needs - from simple reinforced fiberglass terminal block shields to high temperature poly sulphur connectors.

## Terminal Lugs

Arvan is a QPL'd manufacturer of Military Standard Aluminum Lugs for termination of aluminum electrical wires

## Insulating Strips

MS 3373



### TERMINAL BLOCKS

AN 3435  
MS 27212  
MS 25045  
MS25123  
LS 35076  
HS 20-524250  
HS 20-624250  
HS 20-324375  
HS 20-6W175  
HS 20-5W250  
HS 20-624500  
HS 27212  
HS 20-3W960

### TERMINAL BLOCK COVERS

MS 18029  
MS 25046  
LS 3850  
LS 3851  
LS 3853  
LS 7005  
LS 7007  
LS 7008  
HS3-6W

### CONNECTING LINK / BUS BARS

MS25226  
AN3433

### NUT INSULATING STRIPS

MS 3373

### BLOCK INSULATING STRIPS

NAS 1063  
LS 4999

### FUSE HOLDERS

HS 20-934-34  
HS 20-934-38  
HS 20-934-39  
MS 28934

### TERMINAL BOARDS

MS 27249

### LUGS

HS 20-5436  
MS 25435  
HS 20-5439

### Major Customers

Boeing  
McDonnell Douglas

Lockheed  
Northrop  
Spirit Aerosystems

Honeywell  
Hamilton Sundstrand  
Bombardier

Aliena  
Embraer  
Raytheon

AM General  
Kawasaki Heavy Ind.  
Mitsubishi Heavy Ind.

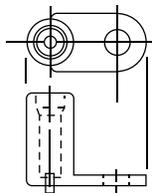
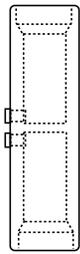
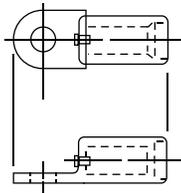


## TERMINAL LUGS - ALUMINUM

MS25435

HS20-5439

HS20-5436 (90°)



## BUS BAR

TERMINAL CONNECTING LINK  
MS25226, NAS1060



BUS BAR  
MS25226

DASH

-2X - M

-4X - M

-6X - M

-8X - M

-10X - M

B

.594

.750

1.500

1.500

.750

MAX  
CAPACITY  
AMPS

40

70

90

90

50

TERMINAL  
BLOCK  
MS27212

- 1

- 2

- 3

- 4, - 5

- 6

X PLATING

N

T

S

CAD

NICKEL

TIN

SILVER

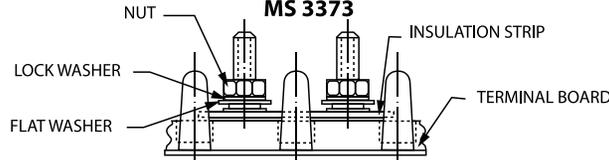
(M = No. of holes)



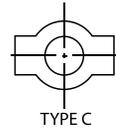
## NUT INSULATING STRIP

FOR MS27212 TERMINAL BLOCKS

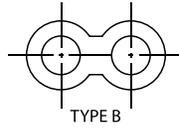
MS 3373



TYPICAL INSTALLATION



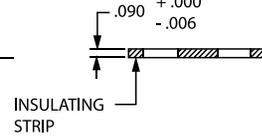
TYPE C



TYPE B



TYPE A

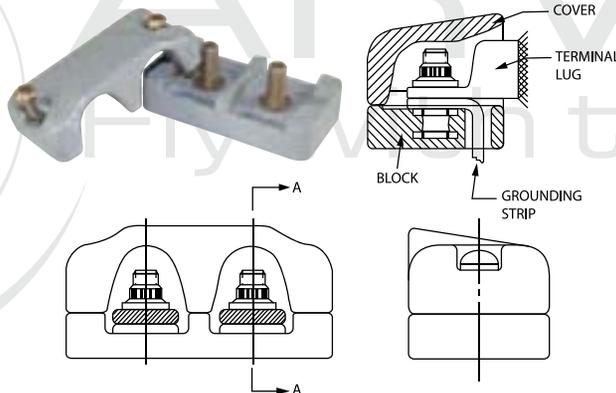


INSULATING STRIP



## TWO STUD TERMINAL BLOCK

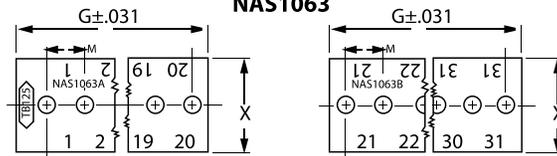
COVER: MS25046-1 BLOCK: MS25045-1



## INSULATING STRIP

TERMINAL BLOCK BASE

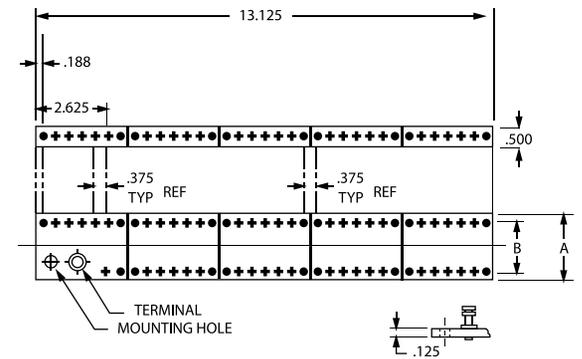
NAS1063



MATERIAL: SILICONE GLASS • TEMPERATURE: 500°F  
APPLICATION: MS27212 TERMINAL BLOCKS • G=NOMINAL LENGTH OF BLOCK

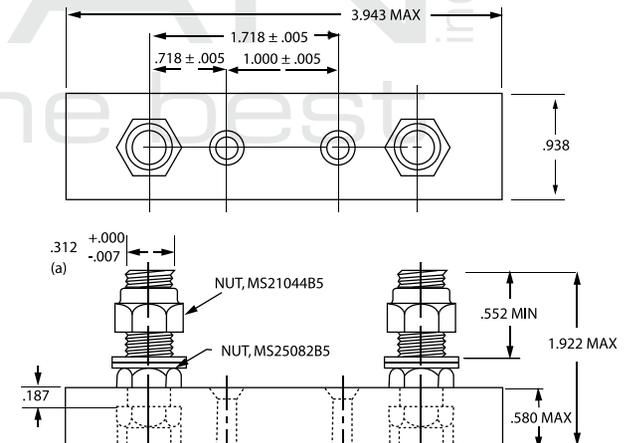
## SECTIONAL TERMINAL BOARDS

MS 27249



## FUSE HOLDER

MS 28934 (HS20-934)



DC, 500 AMPERE MAXIMUM, BOLT DOWN TYPE



# Terminal Blocks & Cover Assemblies

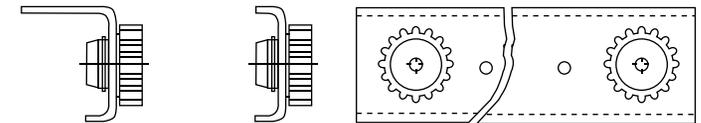
## Specification Summary for MS (Military Standard) Terminal Blocks & Cover Assemblies

Terminal Block								Cover Assembly		
Part Number MS 27212	Stud Size	Max Avail Studs	Overall Height, H	Width, W	Stud Spacing, S	Stud Height, C	Max Length T (ref)	Cover Only	Nut	Assembly (cover + nut)
- 1 - N	6-32 UNC-2A	20	.953	.688	.594	.522	12.334 N=20	MS18029-11(*)-N N=1 to 20	MS18029-21	MS18029-1(*)-N
- 2 - N	10-32 UNF-2A	16	1.079	.938	.750	.595	12.454 N=16	MS18029-12(*)-N N=1 to 16	MS18029-22	MS18029-2(*)-N
- 3 - N	1/4 - 28 UNF-2A	8	1.321	1.250	1.500	.710	12.641 N=8	MS18029-13(*)-N N=1 to 8	MS18029-23	MS18029-3(*)-N
- 4 - N	5/16-24 UNF-2A	8	1.392	1.250	1.500	.781	12.461 N=8	MS18029-13(*)-N NN=1 to 8	MS18029-24	MS18029-4(*)-N
- 5 - N	3/8-24 UNF-2A	8	1.517	1.250	1.500	.906	12.641 N=8	MS18029-13(*)-N NN=1 to 8	MS18029-25	MS18029-5(*)-N
- 6 - N	8-32 UNC-2A	16	1.005	.750	.750	.560	12,454 N=16	MS18029-14(*)N N=1 to 16	MS18029-26	MS18029-6(*)-N

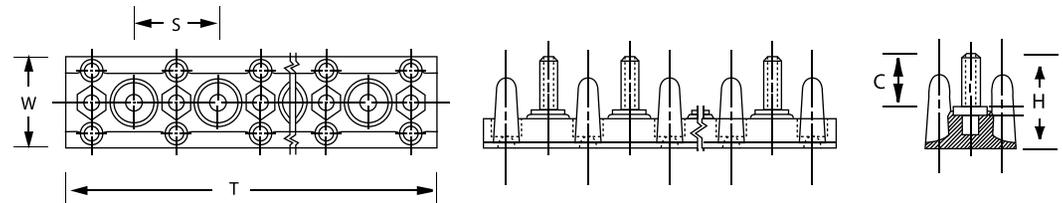
**Notes:**

- All dimensions in inches  $\pm .016$  inch unless otherwise noted.
- "N" indicates number of studs
- (\*) indicates "L" or "S" type of cover
- Material:
  - Terminal Block: Dially Dap Phthalate GDI-30F, ASTM,5948
  - Studs: CRES
  - Cover: Plastic Laminate, MIL-P-25518 type I
- Operating Temperature Range:
  - Cover 475°F max
  - Block: 425°F max

- Typical Part Numbers:  
MS27212-6-5 is terminal block with five 8-32 UNC-2A studs  
MS18029-6L-5 is cover assembly with MS18029-14L-5 type "L" cover and MS18029-26 nuts (2)
- Detailed drawings and specifications available upon request
- Arvan will cut to requested length



(\*) = "L" Type    (\*) = "S" Type



**Major Customers**

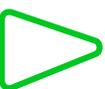
Boeing  
McDonnell Douglas

Lockheed  
Northrop  
Spirit Aerosystems

Honeywell  
Hamilton Sundstrand  
Bombardier

Aliena  
Embraer  
Raytheon

AM General  
Kawasaki Heavy Ind.  
Mitsubishi Heavy Ind.



# Terminal Strip and Insulator Application Guide

CONVENTIONAL NOMEMCLATURE	MS TERMINAL BLOCK	PRE-ASSEMBLED MS COVER / KNOB ASSEMBLY	FIELD ASSEMBLED			PRIMARY HI TEMP BASE INSULATOR	SECONDARY HI TEMP BASE INSULATOR	MS INSTALUTING STRIP	BLOCK STUD/ MOUNTING SPACING	
			MS COVER	MS KNOB	MS BUSS BAR					
"CUSTOM LENGTH"	MS27212-1-1 MS27212-1-2 MS27212-1-3	MS18029-1S(L)-1 MS18029-1S(L)-2 MS18029-1S(L)-3	MS18029-11S(L)-1 MS18029-11S(L)-2 MS18029-11S(L)-3	MS18029-21 MS18029-21 MS18029-21	N/A MS25226-2(X)-2 MS25226-2(X)-3	X= BLANK=CAD PLATING X=S=SILVER PLATING X=N=NICKEL PLATING	NAS1063A1-(YOUR ID) NAS1063A2-(YOUR ID) NAS1063A3-(YOUR ID)	NAS1063B-(X)-(Y) NAS1063B-(X)-(Y) NAS1063B-(X)-(Y)	MS3373-A1 MS3373-B1	.594"
"FULL LENGTH" "MAX AVAILABLE"	MS27212-1-20 MS27212-1-23	MS18029-1S(L)-20 MS18029-1S(L)-41	MS18029-11S(L)-20 MS18029-11S(L)-41	MS18029-21 MS18029-21	MS25226-2(X)-20 MS25226-2(X)-24	X=T=TIN PLATING	NAS1063A20-(YOUR ID) NAS1063A20-(YOUR ID) FIRST TERMINAL NUMBER IS ALWAYS 1	NAS1063B-(X)-(Y) (20 SPACES) NAS1063B-(X)-(Y) (20 SPACES) X=FIRST TERMINAL NUMBER Y=LAST TERMINAL NUMBER	MS3373-C1	
CROSS REF	MS25123-1-X	MS17777	MS17777	MS17777	AN3433-2-X					
"CUSTOM LENGTH"	MS27212-2-1 MS27212-2-2 MS27212-2-3	MS18029-2S(L)-1 MS18029-2S(L)-2 MS18029-2S(L)-3	MS18029-12S(L)-1 MS18029-12S(L)-2 MS18029-12S(L)-3	MS18029-22 MS18029-22 MS18029-22	N/A MS25226-4(X)-2 MS25226-4(X)-3	X= BLANK=CAD PLATING X=S=SILVER PLATING X=N=NICKEL PLATING X=T=TIN PLATING	NAS1063C1-(YOUR ID) NAS1063C2-(YOUR ID) NAS1063C3-(YOUR ID)	NAS1063D-(X)-(Y) NAS1063D-(X)-(Y) NAS1063D-(X)-(Y)	MS3373-A2 MS3373-B2 MS3373-C2	.750"
"FULL LENGTH"	MS27212-2-16	MS18029-2S(L)-16	MS18029-12S(L)-16	MS18029-22	MS25226-4(X)-16	X=T=TIN PLATING	NAS1063C16-(YOUR ID)	NAS1063D-(X)-(Y) (16 SPACES)		
"MAX AVAILABLE"	MS27212-2-16	MS18029-2S(L)-33	MS18029-12S(L)-33	MS18029-22	MS25226-4(X)-24		NAS1063C16-(YOUR ID) FIRST TERMINAL NUMBER IS ALWAYS 1	NAS1063D-(X)-(Y) (16 SPACES) X=FIRST TERMINAL NUMBER		
CROSS REF	MS25123-2-X	MS17777	MS17777	MS17777	AN3433-4-X			Y=LAST TERMINAL NUMBER		
"CUSTOM LENGTH"	MS27212-3-1 MS27212-3-2 MS27212-3-3	MS18029-3S(L)-1 MS18029-3S(L)-2 MS18029-3S(L)-3	MS18029-13S(L)-1 MS18029-13S(L)-2 MS18029-13S(L)-3	MS18029-23 MS18029-23 MS18029-23	N/A MS25226-6(X)-2 MS25226-6(X)-3	X= BLANK=CAD PLATING X=S=SILVER PLATING X=N=NICKEL PLATING X=T=TIN PLATING	NAS1063E1-(YOUR ID) NAS1063E2-(YOUR ID) NAS1063E3-(YOUR ID)	NAS1063F-(X)-(Y) NAS1063F-(X)-(Y) NAS1063F-(X)-(Y)	MS3373-A3 MS3373-B3 MS3373-C3	1.500"
"FULL LENGTH" "MAX AVAILABLE"	MS27212-3-8 MS27212-3-9	MS18029-3S(L)-8 MS18029-3S(L)-17	MS18029-13S(L)-8 MS18029-13S(L)-17	MS18029-23 MS18029-23	MS25226-6(X)-8 MS25226-6(X)-24		NAS1063E8-(YOUR ID) NAS1063E8-(YOUR ID) FIRST TERMINAL NUMBER IS ALWAYS 1	NAS1063F-(X)-(Y) (8 SPACES) NAS1063F-(X)-(Y) (8 SPACES) X=FIRST TERMINAL NUMBER Y=LAST TERMINAL NUMBER		
CROSS REF	MS25123-3-X	MS17777	MS17777	MS17777	AN3433-6-X					
"CUSTOM LENGTH"	MS27212-4-1 MS27212-4-2 MS27212-4-3	MS18029-4S(L)-1 MS18029-4S(L)-2 MS18029-4S(L)-3	MS18029-13S(L)-1 MS18029-13S(L)-2 MS18029-13S(L)-3	MS18029-24 MS18029-24 MS18029-24	N/A MS25226-8(X)-2 MS25226-8(X)-3	X= BLANK=CAD PLATING X=S=SILVER PLATING X=N=NICKEL PLATING X=T=TIN PLATING	NAS1063E1-(YOUR ID) NAS1063E2-(YOUR ID) NAS1063E3-(YOUR ID)	NAS1063F-(X)-(Y) NAS1063F-(X)-(Y) NAS1063F-(X)-(Y)	MS3373-A3 MS3373-B3 MS3373-C3	1.500"
"FULL LENGTH" "MAX AVAILABLE"	MS27212-4-8 MS27212-4-9	MS18029-4S(L)-8 MS18029-4S(L)-17	MS18029-13S(L)-8 MS18029-13S(L)-17	MS18029-24 MS18029-24	MS25226-8(X)-8 MS25226-8(X)-24		NAS1063E8-(YOUR ID) NAS1063E8-(YOUR ID) FIRST TERMINAL NUMBER IS ALWAYS 1	NAS1063F-(X)-(Y) (8 SPACES) NAS1063F-(X)-(Y) (8 SPACES) X=FIRST TERMINAL NUMBER Y=LAST TERMINAL NUMBER		
CROSS REF	MS25123-4-X	MS17777	MS17777	MS17777	AN3433-6-X					
"CUSTOM LENGTH"	MS27212-5-1 MS27212-5-2 MS27212-5-3	MS18029-5S(L)-1 MS18029-5S(L)-2 MS18029-5S(L)-3	MS18029-13S(L)-1 MS18029-13S(L)-2 MS18029-13S(L)-3	MS18029-25 MS18029-25 MS18029-25	N/A MS25226-8(X)-2 MS25226-8(X)-3	X= BLANK=CAD PLATING X=S=SILVER PLATING X=N=NICKEL PLATING X=T=TIN PLATING	NAS1063E1-(YOUR ID) NAS1063E2-(YOUR ID) NAS1063E3-(YOUR ID)	NAS1063F-(X)-(Y) NAS1063F-(X)-(Y) NAS1063F-(X)-(Y)	MS3373-A3 MS3373-B3 MS3373-C3	1.500"
"FULL LENGTH" "MAX AVAILABLE"	MS27212-5-8 MS27212-5-9	MS18029-5S(L)-8 MS18029-5S(L)-17	MS18029-13S(L)-8 MS18029-13S(L)-17	MS18029-25 MS18029-25	MS25226-8(X)-8 MS25226-8(X)-24		NAS1063E8-(YOUR ID) NAS1063E8-(YOUR ID) FIRST TERMINAL NUMBER IS ALWAYS 1	NAS1063F-(X)-(Y) (8 SPACES) NAS1063F-(X)-(Y) (8 SPACES) X=FIRST TERMINAL NUMBER Y=LAST TERMINAL NUMBER		
CROSS REF	MS25123-5-X	MS17777	MS17777	MS17777	AN3433-6-X					
"CUSTOM LENGTH"	MS27212-6-1 MS27212-6-2 MS27212-6-3	MS18029-6S(L)-1 MS18029-6S(L)-2 MS18029-6S(L)-3	MS18029-14S(L)-1 MS18029-14S(L)-2 MS18029-14S(L)-3	MS18029-26 MS18029-26 MS18029-26	N/A MS25226-10(X)-2 MS25226-10(X)-3	X= BLANK=CAD PLATING X=S=SILVER PLATING X=N=NICKEL PLATING X=T=TIN PLATING	NAS1063C1-(YOUR ID) NAS1063C2-(YOUR ID) NAS1063C3-(YOUR ID)	NAS1063D-(X)-(Y) NAS1063D-(X)-(Y) NAS1063D-(X)-(Y)	MS3373-A4 MS3373-B4 MS3373-C4	.750"
"FULL LENGTH" "MAX AVAILABLE"	MS27212-6-16 MS27212-6-16	MS18029-6S(L)-16 MS18029-6S(L)-33	MS18029-14S(L)-16 MS18029-14S(L)-33	MS18029-26 MS18029-26	MS25226-10(X)-16 MS25226-10(X)-24		NAS1063C16-(YOUR ID) NAS1063C16-(YOUR ID) FIRST TERMINAL NUMBER IS ALWAYS 1	NAS1063D-(X)-(Y) (16 SPACES) NAS1063D-(X)-(Y) (16 SPACES) X=FIRST TERMINAL NUMBER Y=LAST TERMINAL NUMBER		
CROSS REF	N/A	N/A	N/A	N/A	AN3433-10-X					

# Custom Composite Thermoset & Thermoplastic Molding

Arvan, is a manufacturer of plastic parts by injection, compression and transfer molding. Arvan serves the aerospace, automotive and consumer industries as a custom molder and a QPL'd manufacturer of military standards and "specials".

## Capability

- Injection Presses from 5
- Compression / Transfer
- DPD approved to interc
- Assemblies to include I
- CNC Machining to custc

## Typical Parts Manufactured

- Aircraft Control Pulleys
- Electrical Terminal Blocks and
- Airframe Fairings and Access
- Specialized Brackets
- Composite Assemblies
- Electrical Connectors
- Bobbins for APU
- Aircraft Interiors
- Military Standards



### Thermoplastic: Injection

- ABS
- Delrin
- Nylon
- PEEK
- Polycarbonate
- PEI
- ULTEM

### Thermoplastic: Compression

- Nylon
- REINFORCED PEEK
- Acetal
- Others with custom fiber weave
- continues. Fiber in sheet form.

### Hand Lay-Up

- Epoxy/Polyester
- Reinforcements
- Polyester Pre-Preg
- (Vacuum Bag or Closed Mold)

### Thermosets

- Transfer Mold
- Compression Mold
- Alkyd (BMC)
- Diallylphthalates
- Epoxy/Vinylester Matrix
- Glass/Carbon Fiber
- Phenolic (Melamine)

### Assembly

- Foam in place polyurethane
- Adhesive bonding
- Solid rivet installation

## Major Customers

Boeing  
McDonnell Douglas

Lockheed  
Northrop  
Spirit Aerosystems

Honeywell  
Hamilton Sundstrand  
Bombardier

Alenia  
Embraer  
Raytheon

AM General  
Kawasaki Heavy Ind.  
Mitsubishi Heavy Ind.



## Quality & Layout Inspection Services

Arvan, Inc's manufacturing processes conform to:

- ISO 9001:2008/AS9100 REV B/EN9100/JISQ9100
- FAA Approved Title 14 part 21 & K
- DFARS Compliant
- ROHS Compliant

- **Boeing**

D6-82479 Quality Approval. D1-4426 approved processes include:

- **BAC-5321** Injection Molding of Thermoplastic Parts
- **BAC-5326** Compression Molding of Exterior Parts Inspection

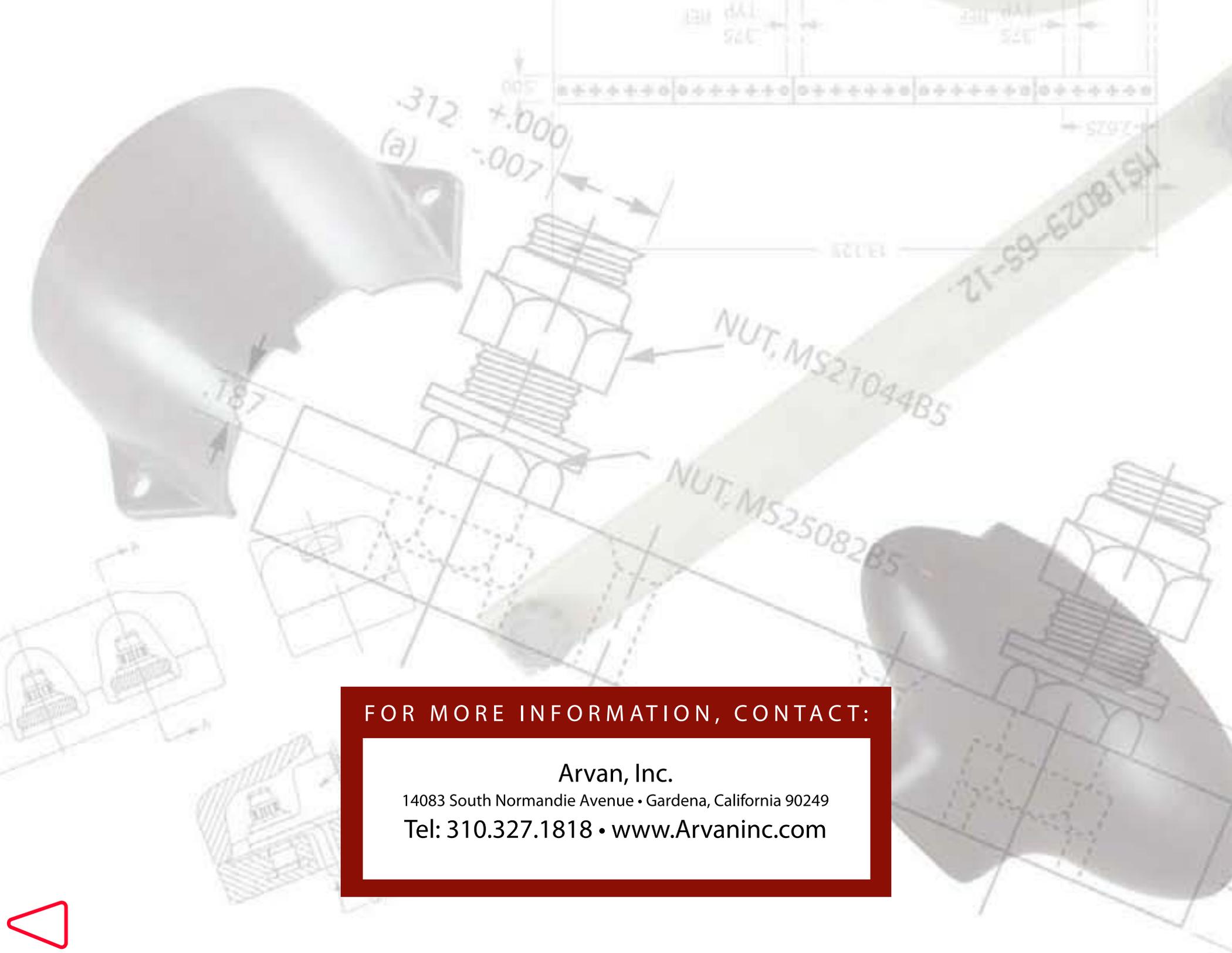
Equipment:

- **Brown & Sharpe CMM with PCDMIS (2) (16"x20"x16") (48"x80"x40")**
- **Romer Infinity PCM Mobile Arm 9' diameter**



**Custom Composite & Plastic Molding**





FOR MORE INFORMATION, CONTACT:

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