TECHNICAL SPECIFICATION

No. TS200™

QUALIFIED MANUFACTURERS FOR SAE ITC AEROSPACE INDUSTRY STANDARD PARTS (AS, AGS AND ESC SERIES)

An SAE International Affiliate

RATIONALE	
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SAE INDUSTRY TECHNOLOGIES CONSORTIA
AEROSPACE STANDARDS AND PART QUALIFICATION PROGRAM

FOREWORD

On the 1st January 2015 the SAE Industry Technologies Consortia (SAE ITC) acquired the ADS Aerospace Standards, previously known as the Society of British Aerospace Companies (SBAC) Aerospace Standards. The SAE ITC established in 2003 operates as a trade association as part of the SAE International Enterprise, providing a unique framework serving the automotive, aerospace and commercial vehicle sectors. Clients include private companies, government agencies, individuals and trade associations. Building consensus and breakthrough barriers to achieve solutions, and the ways by which those solutions take shape are tailored to each client's individual needs.

The legal obligations and copyright authority of all Aerospace Standards that were issued by the ADS Group Limited are therefore assigned / transferred to the SAE ITC.

These Standards are produced by the SAE ITC with the assistance of, and for the benefit of the Aerospace Industry, as part of a continuous programme of Standardisation for Aerospace application under the control of the Technical Standards Committee (TSC) of the SAE ITC.

SAE ITC Standards are published as part of the series of SAE ITC Aerospace Industry Standards, and where appropriate, additional manufacturing and inspection requirements are issued as Reference Sheets (RS) or Technical Specifications (TS). It is the responsibility of those using or specifying a Standard to ensure the product, process, or manufacturer so used or specified, is appropriate for the task or role in question. The SAE ITC wishes to draw special attention to the fact Technical Specifications (TS) include testing and procedures by which a user or Design Authority can establish whether a particular manufacturer, prima facie, has the capability to produce hardware in accordance with the appropriate standards and related specifications.

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It is recommended that Technical Specification TS260, Metallic Materials List of Alternative Material Standards, be consulted prior to manufacture of SAE ITC products.

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All references to Standards include reference to RS and TS publications.

Details of this and any further information can be obtained from the SAE ITC.

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MANUFACTURE & SUPPLY OF ADS AGS & AS SERIES STANDARD PRODUCT RANGES

AGS and AS series standard parts shall be manufactured to the relevant drawing(s) and specification(s) called up on said drawing(s).

Manufacturers of AGS and AS standard products requiring qualification shall be quoted in this document. The qualification procedure defined in TS202 shall apply. Potential manufacturers requiring product qualifications can apply to ADS TSC using Qual Form 1, available on the ADS website Technical Standards page.

A small number of the AGS and AS series product ranges that do not require qualification approval do instruct TS200 or TS202. These products are simple to manufacture and can be controlled adequately by the product standard definition. Formal ADS approval is not be required for these items but manufacturers shall adhere to the product drawing(s) and any specifications referenced.

All manufacturers of ADS standard products shall adhere to recognised quality procedures and specifications as defined in the BS AS EN ISO 9000 series standards or equivalent.

If in doubt consult the ADS Technical Standards Committee (TSC).

STATEMENT ON AGS4719, AGS4720 & AS46788 - 791 RIVETS

The Technical Standards Committee shall withdraw product standards AGS4719, AGS4720 and AS46788 - 791 as there are currently no manufacturers capable of or willing to produce qualified products that fully meet the technical and performance requirements of those standards.

New standards, AS64400 to AS64405, and specifications have been issued to reflect products that are similar to, but not equivalent to, the AGS4719, AGS4720, and AS46788 – 791 products in Form, Fit & Function. A Cancellation Reference Sheet, RS750, is available to provide background to and detail of related documents and the course of action taken. This Reference Sheet is available, at no cost, on the ADS Technical Standards webpage.

The TSC can no longer grant approval to Textron Fastening Systems as they can no longer manufacture products to meet all requirements of AGS4719, AGS4720 and AS46788 – 791. TFS qualification for those product series was rescinded at the end of May 2007, the expiry date of their qualification certificate. Stock manufactured prior to that date shall remain qualified.

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NOTES

These notes relate to aspects of the data contained within the following sections. The notes are divided into three sections that describe **Symbols Used**, **Manufacturers' Former Names** and **Agents for Manufacturers**. The sections and names of manufacturers appear in bold type to aid location of information.

Symbols Used

1. * Indicates that the manufacturer does not produce this item.
2. † Indicates that the manufacturer has ceased trading.
3. ‡ Indicates that there are no qualified manufacturers for this product.

Supplementary information may be provided on relevant page.

Manufacturers' Former Names

1. **Alcoa Fastening Systems, Leicester UK, T/A Linread Limited** was formerly **Linread-Northbridge** was formerly **Northbridge Fasteners**
2. **Alcoa Fastening Systems/Toulouse Operations** was formerly **Fairchild Fasteners / Mecaero**.
3. **Alcoa Fastening Melbourne Pty** was formerly **Fairchild Fasteners Melbourne Pty** and **Recoil Pty Ltd.**
4. **Bollhoff Armstrong Limited** formerly **Armstrong Precision Components** was formerly **Armstrong Fastening Systems**
5. **B.A.S. Aerospace** was formerly **B.A.S. Components** and **Bintcliffe Turner Ltd.**
6. **Dunlop Aerospace Precision Rubber** was formerly **R. E. Components Ltd.**
7. **International Seal-FNGP** was formerly **International Seal Co. Inc.**
8. **Parker Hannifin Canada** was formerly **Wynns Precision**.
9. **B/E Aerospace Consumables Management 11 Limited** was formerly **Satair Hardware UK Ltd.**
10. **Souriau** were formerly **Framatone Connectors International** and **FramatoneConnectors (UK) Ltd.**
11. **Avingtrans plc** formerly **Sigma Precision Components UK Ltd** were formerly **B&D Patterns Ltd**
12. **Cherry Aerospace Fasteners** was formerly **Textron Aerospace Fasteners** and **Avdel Ltd.**
13. **Trelleborg Sealing Solutions** was formerly **TISPP UK & Dowty Seals Ltd.**

Agents for Manufacturers

14. **Alcoa Fastening Systems** (formerly **Fairchild Fasteners UK**) are Agents for **Fairchild/Rosan** and **South Bay**.
15. **Avio Diepen** are UK agents for **Bergen Cables Technologies**.
16. **Bristol Fasteners (Europe) Ltd.** are UK Agents for **Bristol Industries**.
17. **Glenair UK Ltd.** are UK agents for **Daniels Manufacturing**.
18. **NMB Minebea UK Ltd.** & **Rose Bearings Ltd.** are UK Agents **for NMB Minebea Co. Ltd.**
19. **Satair Hardware UK Ltd.**, **Wesco Aircraft** and **Satair Hardware Group** are agents for **Textron Aerospace Fasteners**.
20. **SPS Technologies** are UK agents for **SPS Santa Ana**.
21. **Parker Hannifin** are UK agents for **Parker Hannifin GmbH, Germany**.
22. **Freudenberg Simrit LP** Are UK agents for **International Seal FNGP**
23. **Pyle National Ltd.** are UK agents for **Amphenol Aerospace**.
24. **HCC Industries International** are UK agents for **Sealtronic Inc.**
25. **Satair Hardware Group** are UK agents for **Tri-Star Electronics Inc.**

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BOLTS

AS bolts of all configurations produced to meet the requirements of:

AS1

AS2

AS168

TS21 - Material: BS HR650

Manufacturer	Qualified to supply these diameters	
	Hot Forged	Cold Forged
Blanc Aero Industries	.164 to .500 inclusive	.164 to .3125 inclusive
Alcoa Fastening Systems - Toulouse Ops		.190
Alcoa Fastening Systems, Leicester, UK	.190 to .500 inclusive	.190 & .250
Lisi AerospaceFTB	.164 to .500 inclusive.	.190 & .250
NMB Minebea Co. Ltd	.190 to .500 inclusive	.190, .250 & .3125
SPS Technologies (T.J. Brooks Division)	Dia. up to and inc. .500	.190, .250 & .3125

TS22 - Material: BS S159

Manufacturer	Qualified to supply these diameters	
	Hot Forged	Cold Forged
Blanc Aero Industries	Dia. up to and inc. .500	.190 to .3125 inclusive
Alcoa Fastening Systems, Leicester, UK	.190 to .500 inclusive	.190 & .250
Lisi Aerospace FTB	.190 to .500 inclusive	.190 & .250
NMB Minebea Co. Ltd	.190 to .500 inclusive	.190, .250 & .3125
SPS Technologies (T.J. Brooks Division)	Dia. up to and inc. .500	.190, .250 & .3125

TS23 - Material: BS HR601

Manufacturer	Qualified to supply these diameters	
	Hot Forged	Cold Forged
Blanc Aero Industries	.190 to .500 inclusive	.190
Alcoa Fastening Systems, Leicester, UK	.190 to .500 inclusive	.190 & .250
Lisi Aerospace FTB	.190, .250, .3125 & .4375	.190, & .250
NMB Minebea Co. Ltd	.190, .250 & .3125	*
SPS Technologies (T.J. Brooks Division)	Dia. up to and inc. .500	.190 & .250

TS24 - Material: (Inconel) DTD5638

Blanc Aero Industries	.190 to .500 inclusive	.190 - .375 inclusive
Morton Manufacturing		.190, .250 & .3125
Alcoa Fastening Systems Toulouse Op^ns	.190, .250, .3125 & .375	.190, & .250
Alcoa Fastening Systems, Leicester, UK	.190 to .500 inclusive	.190 & .250
LISI Aerospace (FTB)	.190 to .500 inclusive	.190 & .250
NMB Minebea Co. Ltd	.190 to .500 inclusive	.190, .250 & .3125
SPS Technologies (T.J. Brooks Division)	Dia. up to and inc. .500	.190 to .500 inclusive

Refer to NOTES: on pages 7 & 8 for manufacturer / distributor and product information.

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BOLTS (Cont.)

AS bolts of all configurations produced to meet the requirements of:

TS25 - Material: (Waspaloy) DTD5639

Manufacturer	Qualified to supply these diameters	
	Hot Forged	Cold Forged
Blanc Aero Industries	.190 to .500 inclusive	.190 - .3125 inclusive
M.S Aerospace Inc	0190 &.250 all lgth full thread	0190 &.250 all lgth full thread
Alcoa Fastening Systems, Leicester, UK	.190 to .500 inclusive	.190, .250 & .3125
LISI Aerospace (FTB)	.190 , .250, .3125, .375 & .500	.190 & .250
NMB Minebea Co. Ltd	.190 to .500 inclusive	*
SPS Technologies (T.J. Brooks Division)	Dia. up to and inc. .500	.190 to .500 inclusive

TS137 - Material: DTD5638 or EN2952/EN3219

SPS Technologies (T.J. Brooks Division)	.250 to .500 inclusive	*
Lisi Canada	.250, .3125, .3750, .4375	*

TS145 - Material: FV535

Blanc Aero Industries	.190 to .500 inclusive	.190 - .3125 inclusive
Alcoa Fastening Systems, Leicester, UK	.190 to .4375 Inclusive	.190 & .250
Lisi FTB	.190, .250, .3125 & .375	.190 & .250
NMB Minebea Co. Ltd	.190, .250 & .3125	*
SPS Technologies (T.J. Brooks Division)	.190 to .500 inclusive	*

SCREWS

AS65000 Spiral Drive, 100° CSK, Reduced Head

Manufacturer	Qualified to supply these diameters
SPS Technologies Ltd..	All sizes

AS65010 Spiral Drive, 100° CSK, Full Head

Manufacturer	Qualified to supply these diameters
SPS Technologies Ltd..	All sizes

GASKETS

AS42700 thru 42799

Manufacturer	Qualified to supply these diameters
Nicholsons Aircraft Seals Ltd.	All sizes

Refer to Notes: on pages 7 & 8 for manufacturer / distributor and product information.

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INSERTS

Screw Thread, Screw Locking, Helical Coil, AGS3600 Series

Manufacturer	Qualified to supply these diameters
Bollhoff Armstrong Limited	6-32(.138), 10-32(.190) & .250
Alcoa Fastening Melbourne Pty	*
Emhart Teknologies	All diameters

Screw thread, screw locking, Helical coil, AGS3700 series

Bollhoff Armstrong Limited	All diameters
Alcoa Fastening Melbourne Pty	.190 to.375 diameters inclusive

Screw Thread, Screw Locking, Helical Coil AGS4677 Series

Manufacturer	Qualified to supply these diameters
Emhart Teknologies	All sizes available sizes

Wire Thread, Inserts Unplated UNF AS6733 ADS Part AS6733 Qualification not Required

Wire Thread Inserts Unplated UNC AS6734 ADS Part AS6734 Qualification not Required

Wire Thread Inserts Cadmium plated UNF AS8455 ADS Part AS8455 Qualification not Required

Wire Thread Inserts Cadmium plated UNC AS8456 ADS Part AS8456 Qualification not Required

Screw Locking, Thinwall, Short, Inch

		Manufacturer and Parts qualified				
Bolt Thread Size	ADS Part No.	Rosan	Alcoa Torrance Operations	Fairchild / Sth. Bay	Microdot UK †	SPS Technologies Santa Ana
.190-32	AS52760	AS52760	AS52760	AS52760	*	AS52760
.250-28	AS52761	AS52761	AS52761	AS52761	*	AS52761
.3125-24	AS52762	AS52762	AS52762	AS52762	*	AS52762
.375-24	AS52763	AS52763	AS52763	AS52763	*	AS52763
.4375-20	AS52764	*	*	*	*	
.500-20	AS52765	*	*	*	*	*

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Screw Locking, Thinwall, Long, Metric

Bolt Thread Size	ADS Part No.	Rosan	Fairchild / Sth. Bay	Microdot UK †	SPS Technologies Santa Ana
5mm	AS52770	Superceded by AECMA Standard EN3216			
6mm	AS52771	*	*	*	*
7mm	AS52772	*	*	*	*
8mm	AS52773	*	*	*	*
10mm	AS52774	*	*	*	*

Screw Locking, Thinwall, Long, Inch

Bolt Thread Size	ADS Part No.	Rosan	Alcoa Torrance Operations	Fairchild / Sth. Bay	Microdot UK †	SPS Technologies Santa Ana
.190-32	AS52790	*	AS52790	*	*	AS52790
.250-28	AS52791	*	AS52791	*	*	AS52791
.3125-24	AS52792	*	AS52792	*	*	AS52792
.375-24	AS52793	*	AS52793	*	*	AS52793
.4375-20	AS52794	*	*	*	*	*
.500-20	AS52795	*	*	*	*	*

INSERTS SALVAGE

Screw Locking, Thinwall, Short, Metric (Inco 718) - AS62132 thru 62136

Manufacturer and Parts qualified

Bolt thread size	ADS Part No.	Rosan	Alcoa Torrance Operations	SPS Technologies Santa Ana
MJ5 x 0,8 4H6H	AS62132	*	AS62132	*
MJ6 x 1,0 4H6H	AS62133	*	AS62133	*
MJ7x 1,0 4H5H	AS62134	*	*	*
MJ8x 1,0 4H5H	AS62135	*	*	*
MJ10x 1,25 4H5H	AS62136	*	*	*

Screw Locking, Thinwall, Short, Inch (Inco 718) - AS62141 thru 62146

Bolt Thread Size	ADSPart No.	Rosan	Alcoa Torrance Operations	SPS Technologies Santa Ana
.190-32	AS62141	*	AS62141	*
.250-28	AS62142	*	AS62142	*
.3125-24	AS62143	*	AS62143	*
.375-24	AS62144	*	AS62144	*
.4375-20	AS62145	*	*	*
.500-20	AS62146	*	*	*

Screw Locking, Thinwall, Long, Metric (Inco 718) - AS62150 thru 62159

There are no manufacturers currently qualified to produce these parts

Screw Locking, Thinwall, Long, Inch (Inco 718) - AS62160 thru 62169

Bolt Thread Size	ADS Part No.	Rosan	Alcoa Torrance Operations	SPS Technologies Santa Ana
.190-32	AS62161	*	AS62161	*
.250-28	AS62162	*	AS62162	*
.3125-24	AS62163	*	AS62163	*
.375-24	AS62164	*	AS62164	*
.4375-20	AS62165	*	*	*
.500-20	AS62166	*	*	*

Refer to Notes: on pages 7 & 8 for manufacturer / distributor and product information.

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