

## PRODUCT QUALIFICATION QUALIFICATION DE PRODUIT / ERZEUGNISQUALIFIKATION

CERTIFICATE NO. No DE CERTIFICAT ZERTIFIKAT NR.	PQ052 - Manufacturing Change
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This is to certify that the manufacturer / Ceci certifie que le fabricant / Hiermit wird bescheinigt, dass der Hersteller

COMPANY NAME : Senior Aerospace Ermeto SAS  
NOM DE SOCIETE : 8 Rue Du Clos Thomas  
FIRMA : Fosse  
41330  
France

PLACE OF MANUFACTURE :  
LIEU DE FABRICATION : As above  
HERSTELLUNGSORT :

has met the requirements of EN9133 in respect of the following standards:  
a satisfait les exigences de l'EN9133 en ce qui concerne les normes suivantes:  
die Forderungen der EN9133 erfüllt unter Berücksichtigung der folgenden Normen:

**Approved under Report No : 1487-(MCR) – Senior Aerospace Ermeto – Fosse (FR) PQ052 Dated: 14 Jun 2023**  
**Completed by ASD-CERT Auditor : Keith Allen**

Applicable Standard Norme applicable Zutreffende Norm & Publication Date	Standard Number	Designation (or identifiers)	Products Produits Erzeugnisse
EN3275	EN2656	16, 18, 20, 22, 25, 28, 32	Pipe couplings up to 56000 kPa - Fitting end, welded - Geometrical configuration
EN3275	EN3080	05, 06, 08, 10, 12, 14, 16, 18, 20, 22, 25, 28, 32	Pipe coupling 8°30' in titanium alloy - Tees, reduced, branch with thrust wire nut

This certificate is valid / Ce certificat est valable / Dieses Zertifikat ist gültig

from 01-Apr-2023 until 01-Apr-2026

except if cancelled in the meantime / sauf si annulé entre-temps / sofern zwischenzeitlich nicht widerrufen

# PRODUCT QUALIFICATION

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Applicable Standard Norme applicable Zutreffende Norm & Publication Date	Standard Number	Designation (or identifiers)	Products Produits Erzeugnisse
EN3275	EN3081	05, 06, 08, 10, 12, 14, 16, 18, 20, 22, 25, 28, 32	Pipe coupling 8° 30' in titanium alloy, ferrules, welded, with dynamic beam seal end, for repair
EN3275	EN3082	05, 06, 08, 10, 12, 14, 16, 18, 20, 22, 25, 28, 32	Pipe coupling 8°30' in titanium alloy - Unions, bulkhead welded end, for repair
EN3275	EN3083	05, 06, 08, 10, 12, 14, 16, 18, 20, 22, 25, 28, 32	Pipe coupling 8°30' in titanium alloy - Unions, bulkhead, long welded end, for repair
EN3275	EN3084	05, 06, 08, 10, 12, 14, 16, 18, 20, 22, 25, 28, 32	Pipe coupling 8° 30' in titanium alloy, unions, long, welded, for repair
EN3275	EN3243	05, 06, 08, 10, 12, 14, 16, 18, 20, 22, 25, 28, 32	Pipe coupling 8°30' in titanium alloy - Ferrule, welded, with dynamic beam seal end
EN3275	EN3244	05, 06, 08, 10, 12, 14, 16, 18, 20, 22, 25, 28, 32	Pipe coupling 8° 30' in titanium alloy, unions, double ended
EN3275	EN3245	06, 08, 10, 12, 16, 20, 25, 32	Pipe coupling 8° 30' in titanium alloy, unions, reducer
EN3275	EN3246	05, 06, 08, 10, 12, 14, 16, 18, 20, 22, 25, 28, 32	Pipe coupling 8° 30' in titanium alloy, unions, bulkhead
EN3275	EN3247	05, 06, 08, 10, 12, 14, 16, 18, 20, 22, 25, 28, 32	Pipe coupling 8° 30' in titanium alloy, unions, bulkhead, welded
EN3275	EN3264	05, 06, 08, 10, 12, 14, 16, 18, 20, 22, 25, 28	Pipe coupling 8°30' in titanium alloy - Swivel nuts
EN3275	EN3266	05, 06, 08, 10, 12, 14, 16, 18, 20, 22, 25, 28, 32	Pipe coupling in titanium alloy - Bulkhead nuts
EN3275	EN3267	05, 06, 08, 10, 12, 14, 16, 18, 20, 22, 25, 28, 32	Washer, bulkhead in titanium alloy

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Applicable Standard Norme applicable Zutreffende Norm & Publication Date	Standard Number	Designation (or identifiers)	Products Produits Erzeugnisse
EN3275	EN3268	05, 06, 08, 10, 12, 14, 16, 18, 20, 22, 25, 28, 32	Pipe coupling 8°30' in titanium alloy - Pressure plugs
EN3275	EN3269	05, 06, 08, 10, 12, 14, 16, 18, 20, 22, 25, 28, 32	Pipe coupling 8°30' in titanium alloy - Blind ferrules with dynamic beam seal end
EN3275	EN3272	04, 05, 06, 08, 10, 12, 14, 16, 18, 20, 22, 24, 25, 28, 32	Pipe coupling 8°30' - Dynamic beam seal end for nipple, welded - Geometric configuration
EN3275	EN3273	04, 05, 06, 08, 10, 12, 14, 16, 18, 20, 22, 25, 28, 32	Pipe coupling 8°30' - Dynamic beam seal end for elbows, tees and crosses - Geometric configuration
EN3275	EN3274	04, 05, 06, 08, 10, 12, 14, 16, 18, 20, 22, 25, 28, 32	Pipe coupling 8°30' - Thread end - Geometric configuration
EN3275	EN3561	06, 08, 10, 12, 14, 16, 18, 20, 22, 25, 28, 32	Pipe coupling 8°30' in titanium alloy - Ferrules with dynamic beam seal end, welded and reduced at pipe end
EN3275	EN3688	08, 10, 12, 14, 16, 18, 20, 22, 25, 28, 32	T-ring fillers in titanium alloy for welding pipes - 14 000 kPa nominal pressure
EN3275	EN3689	04, 05, 06, 08, 10, 12, 14, 16, 18, 20, 22, 25, 28	T-ring fillers in titanium alloy for welding pipes - 28 000 kPa nominal pressure
EN3275	EN3690	05, 06, 08, 10, 12, 14, 16, 18, 20, 22, 25, 28, 32	Pipe coupling 8°30' in titanium alloy - Unions, bulkhead, long
EN3275	EN3691	05, 06, 08, 10, 12, 14, 16, 18, 20, 22, 25, 28, 32	Pipe coupling 8°30' in titanium alloy - Unions, bulkhead, long, welded
EN3275	EN3696	05, 06, 08, 10, 12, 14, 16, 18, 20, 22, 24, 25, 28, 32	Washers in heat resisting steel
EN3275	EN4017	05, 06, 08, 10, 12, 14, 16, 18, 20, 22, 25, 28, 32	Pipe coupling 8°30' in titanium alloy - Elbows 90°

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Christelle Festaud, ASD-CERT Secretary General  
331-476-57011

10 October 2023

**PRODUCT QUALIFICATION**  
**QUALIFICATION DE PRODUIT / ERZEUGNISQUALIFIKATION**

CERTIFICATE NO. No DE CERTIFICAT ZERTIFIKAT NR.	<b>PQ052</b>
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Applicable Standard Norme applicable Zutreffende Norm & Publication Date	Standard Number	Designation (or identifiers)	Products Produits Erzeugnisse
EN3275	EN4018	05, 06, 08, 10, 12, 14, 16, 18, 20, 22, 25, 28, 32	Pipe coupling 8°30' in titanium alloy - Elbows 90°, swivel nut
EN3275	EN4019	05, 06, 08, 10, 12, 14, 16, 18, 20, 22, 25, 28, 32	Pipe coupling 8°30' in titanium alloy - Elbows 90°, welded
EN3275	EN4020	05, 06, 08, 10, 12, 14, 16, 18, 20, 22, 25, 28, 32	Pipe coupling 8°30' in titanium alloy - Elbows 90° swivel nut, welded
EN3275	EN4021	05, 06, 08, 10, 12, 14, 16, 18, 20, 22, 25, 28, 32	Pipe coupling 8°30' in titanium alloy - Elbows 90°, bulkhead
EN3275	EN4022	05, 06, 08, 10, 12, 14, 16, 18, 20, 22, 25, 28, 32	Pipe coupling 8°30' in titanium alloy - Elbows 90°, bulkhead, welded
EN3275	EN4023	05, 06, 08, 10, 12, 14, 16, 18, 20, 22, 25, 28, 32	Pipe coupling 8°30' in titanium alloy - Elbows 45°
EN3275	EN4024	05, 06, 08, 10, 12, 14, 16, 18, 20, 22, 25, 28, 32	Pipe coupling 8°30' in titanium alloy - Elbows 45°, swivel nut, welded
EN3275	EN4025	05, 06, 08, 10, 12, 14, 16, 18, 20, 22, 25, 28, 32	Pipe coupling 8°30' in titanium alloy - Elbows 45°, bulkhead
EN3275	EN4026	05, 06, 08, 10, 12, 14, 16, 18, 20, 22, 25, 28, 32	Pipe coupling 8°30' in titanium alloy - Tees
EN3275	EN4027	05, 06, 08, 10, 12, 14, 16, 18, 20, 22, 25, 28, 32	Pipe coupling 8°30' in titanium alloy - Tees, branch with swivel nut
EN3275	EN4028	05, 06, 08, 10, 12, 14, 16, 18, 20, 22, 25, 28, 32	Pipe coupling 8°30' in titanium alloy - Tees, swivel nut on run

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Applicable Standard Norme applicable Zutreffende Norm & Publication Date	Standard Number	Designation (or identifiers)	Products Produits Erzeugnisse
EN3275	EN4029	05, 06, 08, 10, 12, 14, 16, 18, 20, 22, 25, 28, 32	Pipe coupling 8°30' in titanium alloy - Tees, bulkhead branch
EN3275	EN4030	05, 06, 08, 10, 12, 14, 16, 18, 20, 22, 25, 28, 32	Pipe coupling 8°30' in titanium alloy - Tees, bulkhead run
EN3275	EN4031	05, 06, 08, 10, 12, 14, 16, 18, 20, 22, 25, 28, 32	Pipe coupling 8°30' in titanium alloy - Nuts for welded union
EN3275	EN4032	05, 06, 08, 10, 12, 14, 16, 18, 20, 22, 25, 28, 32	Pipe coupling 8°30' in titanium alloy - Thrust wire
EN3275	EN4182	05, 06, 08, 10, 12, 14, 16, 18, 20, 22, 25, 28, 32	Pipe coupling 8° 30 in titanium alloy - Tee, reduced
EN3275	EN4183	05, 06, 08, 10, 12, 14, 16, 18, 20, 22, 25, 28, 32	Pipe coupling 8° 30 in titanium alloy - Elbows 90°, double, welded
EN3275	EN4184	05, 06, 08, 10, 12, 14, 16, 18, 20, 22, 25, 28, 32	Pipe coupling 8° 30 in titanium alloy - Elbows 45°, double, welded
EN3275	EN4185	05, 06, 08, 10, 12, 14, 16, 18, 20, 22, 25, 28, 32	Pipe coupling 8° 30 in titanium alloy - Tees, bulkhead on run long
EN3275	EN4186	05, 06, 08, 10, 12, 14, 16, 18, 20, 22, 25, 28, 32	Pipe coupling 8° 30 in titanium alloy - Cross unions
EN3275	EN4187	05, 06, 08, 10, 12, 14, 16, 18, 20, 22, 25, 28, 32	Pipe coupling 8° 30 in titanium alloy - Elbows 90°, bulkhead, long
EN3275	EN4188	05, 06, 08, 10, 12, 14, 16, 18, 20, 22, 25, 28, 32	Pipe coupling 8° 30 in titanium alloy - Elbows 90°, bulkhead, long, welded

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Christelle Festaud, ASD-CERT Secretary General  
331-476-57011 10 October 2023

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Applicable Standard Norme applicable Zutreffende Norm & Publication Date	Standard Number	Designation (or identifiers)	Products Produits Erzeugnisse
EN3275	EN4189	05, 06, 08, 10, 12, 14, 16, 18, 20, 22, 25, 28, 32	Pipe coupling 8° 30 in titanium alloy - Tees, bulkhead branch, long
EN3275	EN4190	05, 06, 08, 10, 12, 14, 16, 18, 20, 22, 25, 28, 32	Pipe coupling 8° 30 in titanium alloy - Tees, reduced, with swivel nut on run
EN3275	EN4191	05, 06, 08, 10, 12, 14, 16, 18, 20, 22, 25, 28, 32	Pipe coupling 8° 30 in titanium alloy - Tees, reduced, bulkhead branch, long
EN3275	EN4192	05, 06, 08, 10, 12, 14, 16, 18, 20, 22, 25, 28, 32	Pipe coupling 8° 30 in titanium alloy - Tees, reduced, bulkhead branch
EN3275	EN4193	05, 06, 08, 10, 12, 14, 16, 18, 20, 22, 25, 28, 32	Pipe coupling 8° 30 in titanium alloy - Tees, reduced, bulkhead on run long
EN3275	EN4194	05, 06, 08, 10, 12, 14, 16, 18, 20, 22, 25, 28, 32	Pipe coupling 8° 30 in titanium alloy - Tees, reduced, bulkhead
EN3275	EN4233	05, 06, 08, 10, 12, 14, 16, 18, 20, 22, 25, 28, 32	Pipe coupling 8°30' in titanium alloy - Unions, welded, threaded
EN3275	EN4610	05, 06, 08, 10, 12, 14, 16, 18, 20, 22, 25, 28, 32	Pipe couplings up to 56000 kPa - Fitting end, welded - Geometrical configuration

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Christelle Festaud, ASD-CERT Secretary General  
331-476-57011

10 October 2023

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CERTIFICATE NO. No DE CERTIFICAT ZERTIFIKAT NR.	PQ052
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This is to certify that the manufacturer / Ceci certifie que le fabricant / Hiermit wird bescheinigt, dass der Hersteller

COMPANY NAME : Senior Aerospace Ermeto SAS  
NOM DE SOCIETE : 8 Rue Du Clos Thomas  
FIRMA : Fosse  
41330  
France

PLACE OF MANUFACTURE :  
LIEU DE FABRICATION : As above  
HERSTELLUNGSORT :

has met the requirements of EN9133 in respect of the following standards:  
a satisfait les exigences de l'EN9133 en ce qui concerne les normes suivantes:  
die Forderungen der EN9133 erfüllt unter Berücksichtigung der folgenden Normen:

**Approved under Report No : 1433-(R) – Senior Aerospace Ermeto – Fosse (FR) PQ052 Dated: 14 Jun 2023**  
**Completed by ASD-CERT Auditor : Keith Allen**

Applicable Standard Norme applicable Zutreffende Norm & Publication Date	Standard Number	Designation (or identifiers)	Products Produits Erzeugnisse
EN3275	EN2656	16, 18, 20, 22, 25, 28, 32	Pipe couplings up to 56000 kPa - Fitting end, welded - Geometrical configuration
EN3275	EN3080	05, 06, 08, 10, 12, 14, 16, 18, 20, 22, 25, 28, 32	Pipe coupling 8°30' in titanium alloy - Tees, reduced, branch with thrust wire nut

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Applicable Standard Norme applicable Zutreffende Norm & Publication Date	Standard Number	Designation (or identifiers)	Products Produits Erzeugnisse
EN3275	EN3081	05, 06, 08, 10, 12, 14, 16, 18, 20, 22, 25, 28, 32	Pipe coupling 8° 30' in titanium alloy, ferrules, welded, with dynamic beam seal end, for repair
EN3275	EN3082	05, 06, 08, 10, 12, 14, 16, 18, 20, 22, 25, 28, 32	Pipe coupling 8°30' in titanium alloy - Unions, bulkhead welded end, for repair
EN3275	EN3083	05, 06, 08, 10, 12, 14, 16, 18, 20, 22, 25, 28, 32	Pipe coupling 8°30' in titanium alloy - Unions, bulkhead, long welded end, for repair
EN3275	EN3084	05, 06, 08, 10, 12, 14, 16, 18, 20, 22, 25, 28, 32	Pipe coupling 8° 30' in titanium alloy, unions, long, welded, for repair
EN3275	EN3243	05, 06, 08, 10, 12, 14, 16, 18, 20, 22, 25, 28, 32	Pipe coupling 8°30' in titanium alloy - Ferrule, welded, with dynamic beam seal end
EN3275	EN3244	05, 06, 08, 10, 12, 14, 16, 18, 20, 22, 25, 28, 32	Pipe coupling 8° 30' in titanium alloy, unions, double ended
EN3275	EN3245	06, 08, 10, 12, 16, 20, 25, 32	Pipe coupling 8° 30' in titanium alloy, unions, reducer
EN3275	EN3246	05, 06, 08, 10, 12, 14, 16, 18, 20, 22, 25, 28, 32	Pipe coupling 8° 30' in titanium alloy, unions, bulkhead
EN3275	EN3247	05, 06, 08, 10, 12, 14, 16, 18, 20, 22, 25, 28, 32	Pipe coupling 8° 30' in titanium alloy, unions, bulkhead, welded
EN3275	EN3264	05, 06, 08, 10, 12, 14, 16, 18, 20, 22, 25, 28	Pipe coupling 8°30' in titanium alloy - Swivel nuts
EN3275	EN3266	05, 06, 08, 10, 12, 14, 16, 18, 20, 22, 25, 28, 32	Pipe coupling in titanium alloy - Bulkhead nuts
EN3275	EN3267	05, 06, 08, 10, 12, 14, 16, 18, 20, 22, 25, 28, 32	Washer, bulkhead in titanium alloy

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Christelle Festaud, ASD-CERT Secretary General  
331-476-57011                      10 October 2023



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Applicable Standard Norme applicable Zutreffende Norm & Publication Date	Standard Number	Designation (or identifiers)	Products Produits Erzeugnisse
EN3275	EN3268	05, 06, 08, 10, 12, 14, 16, 18, 20, 22, 25, 28, 32	Pipe coupling 8°30' in titanium alloy - Pressure plugs
EN3275	EN3269	05, 06, 08, 10, 12, 14, 16, 18, 20, 22, 25, 28, 32	Pipe coupling 8°30' in titanium alloy - Blind ferrules with dynamic beam seal end
EN3275	EN3272	04, 05, 06, 08, 10, 12, 14, 16, 18, 20, 22, 24, 25, 28, 32	Pipe coupling 8°30' - Dynamic beam seal end for nipple, welded - Geometric configuration
EN3275	EN3273	04, 05, 06, 08, 10, 12, 14, 16, 18, 20, 22, 25, 28, 32	Pipe coupling 8°30' - Dynamic beam seal end for elbows, tees and crosses - Geometric configuration
EN3275	EN3274	04, 05, 06, 08, 10, 12, 14, 16, 18, 20, 22, 25, 28, 32	Pipe coupling 8°30' - Thread end - Geometric configuration
EN3275	EN3561	06, 08, 10, 12, 14, 16, 18, 20, 22, 25, 28, 32	Pipe coupling 8°30' in titanium alloy - Ferrules with dynamic beam seal end, welded and reduced at pipe end
EN3275	EN3688	08, 10, 12, 14, 16, 18, 20, 22, 25, 28, 32	T-ring fillers in titanium alloy for welding pipes - 14 000 kPa nominal pressure
EN3275	EN3689	04, 05, 06, 08, 10, 12, 14, 16, 18, 20, 22, 25, 28	T-ring fillers in titanium alloy for welding pipes - 28 000 kPa nominal pressure
EN3275	EN3690	05, 06, 08, 10, 12, 14, 16, 18, 20, 22, 25, 28, 32	Pipe coupling 8°30' in titanium alloy - Unions, bulkhead, long
EN3275	EN3691	05, 06, 08, 10, 12, 14, 16, 18, 20, 22, 25, 28, 32	Pipe coupling 8°30' in titanium alloy - Unions, bulkhead, long, welded
EN3275	EN3696	05, 06, 08, 10, 12, 14, 16, 18, 20, 22, 24, 25, 28, 32	Washers in heat resisting steel
EN3275	EN4017	05, 06, 08, 10, 12, 14, 16, 18, 20, 22, 25, 28, 32	Pipe coupling 8°30' in titanium alloy - Elbows 90°

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Applicable Standard Norme applicable Zutreffende Norm & Publication Date	Standard Number	Designation (or identifiers)	Products Produits Erzeugnisse
EN3275	EN4018	05, 06, 08, 10, 12, 14, 16, 18, 20, 22, 25, 28, 32	Pipe coupling 8°30' in titanium alloy - Elbows 90°, swivel nut
EN3275	EN4019	05, 06, 08, 10, 12, 14, 16, 18, 20, 22, 25, 28, 32	Pipe coupling 8°30' in titanium alloy - Elbows 90°, welded
EN3275	EN4020	05, 06, 08, 10, 12, 14, 16, 18, 20, 22, 25, 28, 32	Pipe coupling 8°30' in titanium alloy - Elbows 90° swivel nut, welded
EN3275	EN4021	05, 06, 08, 10, 12, 14, 16, 18, 20, 22, 25, 28, 32	Pipe coupling 8°30' in titanium alloy - Elbows 90°, bulkhead
EN3275	EN4022	05, 06, 08, 10, 12, 14, 16, 18, 20, 22, 25, 28, 32	Pipe coupling 8°30' in titanium alloy - Elbows 90°, bulkhead, welded
EN3275	EN4023	05, 06, 08, 10, 12, 14, 16, 18, 20, 22, 25, 28, 32	Pipe coupling 8°30' in titanium alloy - Elbows 45°
EN3275	EN4024	05, 06, 08, 10, 12, 14, 16, 18, 20, 22, 25, 28, 32	Pipe coupling 8°30' in titanium alloy - Elbows 45°, swivel nut, welded
EN3275	EN4025	05, 06, 08, 10, 12, 14, 16, 18, 20, 22, 25, 28, 32	Pipe coupling 8°30' in titanium alloy - Elbows 45°, bulkhead
EN3275	EN4026	05, 06, 08, 10, 12, 14, 16, 18, 20, 22, 25, 28, 32	Pipe coupling 8°30' in titanium alloy - Tees
EN3275	EN4027	05, 06, 08, 10, 12, 14, 16, 18, 20, 22, 25, 28, 32	Pipe coupling 8°30' in titanium alloy - Tees, branch with swivel nut
EN3275	EN4028	05, 06, 08, 10, 12, 14, 16, 18, 20, 22, 25, 28, 32	Pipe coupling 8°30' in titanium alloy - Tees, swivel nut on run

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Applicable Standard Norme applicable Zutreffende Norm & Publication Date	Standard Number	Designation (or identifiers)	Products Produits Erzeugnisse
EN3275	EN4029	05, 06, 08, 10, 12, 14, 16, 18, 20, 22, 25, 28, 32	Pipe coupling 8°30' in titanium alloy - Tees, bulkhead branch
EN3275	EN4030	05, 06, 08, 10, 12, 14, 16, 18, 20, 22, 25, 28, 32	Pipe coupling 8°30' in titanium alloy - Tees, bulkhead run
EN3275	EN4031	05, 06, 08, 10, 12, 14, 16, 18, 20, 22, 25, 28, 32	Pipe coupling 8°30' in titanium alloy - Nuts for welded union
EN3275	EN4032	05, 06, 08, 10, 12, 14, 16, 18, 20, 22, 25, 28, 32	Pipe coupling 8°30' in titanium alloy - Thrust wire
EN3275	EN4182	05, 06, 08, 10, 12, 14, 16, 18, 20, 22, 25, 28, 32	Pipe coupling 8° 30 in titanium alloy - Tee, reduced
EN3275	EN4183	05, 06, 08, 10, 12, 14, 16, 18, 20, 22, 25, 28, 32	Pipe coupling 8° 30 in titanium alloy - Elbows 90°, double, welded
EN3275	EN4184	05, 06, 08, 10, 12, 14, 16, 18, 20, 22, 25, 28, 32	Pipe coupling 8° 30 in titanium alloy - Elbows 45°, double, welded
EN3275	EN4185	05, 06, 08, 10, 12, 14, 16, 18, 20, 22, 25, 28, 32	Pipe coupling 8° 30 in titanium alloy - Tees, bulkhead on run long
EN3275	EN4186	05, 06, 08, 10, 12, 14, 16, 18, 20, 22, 25, 28, 32	Pipe coupling 8° 30 in titanium alloy - Cross unions
EN3275	EN4187	05, 06, 08, 10, 12, 14, 16, 18, 20, 22, 25, 28, 32	Pipe coupling 8° 30 in titanium alloy - Elbows 90°, bulkhead, long
EN3275	EN4188	05, 06, 08, 10, 12, 14, 16, 18, 20, 22, 25, 28, 32	Pipe coupling 8° 30 in titanium alloy - Elbows 90°, bulkhead, long, welded

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**PRODUCT QUALIFICATION**  
**QUALIFICATION DE PRODUIT / ERZEUGNISQUALIFIKATION**

CERTIFICATE NO. No DE CERTIFICAT ZERTIFIKAT NR.	<b>PQ052</b>
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Applicable Standard Norme applicable Zutreffende Norm & Publication Date	Standard Number	Designation (or identifiers)	Products Produits Erzeugnisse
EN3275	EN4189	05, 06, 08, 10, 12, 14, 16, 18, 20, 22, 25, 28, 32	Pipe coupling 8° 30 in titanium alloy - Tees, bulkhead branch, long
EN3275	EN4190	05, 06, 08, 10, 12, 14, 16, 18, 20, 22, 25, 28, 32	Pipe coupling 8° 30 in titanium alloy - Tees, reduced, with swivel nut on run
EN3275	EN4191	05, 06, 08, 10, 12, 14, 16, 18, 20, 22, 25, 28, 32	Pipe coupling 8° 30 in titanium alloy - Tees, reduced, bulkhead branch, long
EN3275	EN4192	05, 06, 08, 10, 12, 14, 16, 18, 20, 22, 25, 28, 32	Pipe coupling 8° 30 in titanium alloy - Tees, reduced, bulkhead branch
EN3275	EN4193	05, 06, 08, 10, 12, 14, 16, 18, 20, 22, 25, 28, 32	Pipe coupling 8° 30 in titanium alloy - Tees, reduced, bulkhead on run long
EN3275	EN4194	05, 06, 08, 10, 12, 14, 16, 18, 20, 22, 25, 28, 32	Pipe coupling 8° 30 in titanium alloy - Tees, reduced, bulkhead
EN3275	EN4233	05, 06, 08, 10, 12, 14, 16, 18, 20, 22, 25, 28, 32	Pipe coupling 8°30' in titanium alloy - Unions, welded, threaded
EN3275	EN4610	05, 06, 08, 10, 12, 14, 16, 18, 20, 22, 25, 28, 32	Pipe couplings up to 56000 kPa - Fitting end, welded - Geometrical configuration

This certificate is valid / Ce certificat est valable / Dieses Zertifikat ist gültig

from 01-Apr-2023 until 01-Apr-2026

except if cancelled in the meantime / sauf si annulé entre-temps / sofern zwischenzeitlich nicht widerrufen



Christelle Festaud, ASD-CERT Secretary General  
331-476-57011 10 October 2023

## PRODUCT QUALIFICATION QUALIFICATION DE PRODUIT / ERZEUGNISQUALIFIKATION

CERTIFICATE NO. No DE CERTIFICAT ZERTIFIKAT NR.	<b>PQ052 Renewal</b>
---	----------------------

This is to certify that the manufacturer / Ceci certifie que le fabricant / Hiermit wird bescheinigt, dass der Hersteller

COMPANY NAME : Senior Aerospace Ermeto SAS  
NOM DE SOCIETE : 8 Rue Du Clos Thomas  
FIRMA : Fosse  
41330  
France

PLACE OF MANUFACTURE :  
LIEU DE FABRICATION : As above  
HERSTELLUNGSORT :

has met the requirements of EN9133 in respect of the following standards:  
a satisfait les exigences de l'EN9133 en ce qui concerne les normes suivantes:  
die Forderungen der EN9133 erfüllt unter Berücksichtigung der folgenden Normen:

Approved under Report No : 916-(R) – Senior Aerospace Ermeto – Fosse (FR) PQ052 Dated: 7 Apr 2020  
Completed by ASD-CERT Auditor : Keith Allen

Applicable Standard Norme applicable Zutreffende Norm & Publication Date	Standard Number	Designation (or identifiers)	Products Produits Erzeugnisse
	EN2656	16, 18, 20, 22, 25, 28, 32	Pipe couplings up to 56000 kPa - Fitting end, welded - Geometrical configuration
EN3275	EN3080	05, 06, 08, 10, 12, 14, 16, 18, 20, 22, 25, 28, 32	Pipe coupling 8°30' in titanium alloy - Tees, reduced, branch with thrust wire nut

### Fire Test not performed

This certificate is valid until / Ce certificat est valable jusqu'au / Dieses Zertifikat ist gültig bis

01-Apr-2023

except if cancelled in the meantime / sauf si annulé entre-temps / sofern zwischenzeitlich nicht widerrufen



# PRODUCT QUALIFICATION

## QUALIFICATION DE PRODUIT / ERZEUGNISQUALIFIKATION

CERTIFICATE NO. No DE CERTIFICAT ZERTIFIKAT NR.	<b>PQ052</b>
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Applicable Standard Norme applicable Zutreffende Norm & Publication Date	Standard Number	Designation (or identifiers)	Products Produits Erzeugnisse
EN3275	EN3081	05, 06, 08, 10, 12, 14, 16, 18, 20, 22, 25, 28, 32	Pipe coupling 8° 30' in titanium alloy, ferrules, welded, with dynamic beam seal end, for repair
EN3275	EN3082	05, 06, 08, 10, 12, 14, 16, 18, 20, 22, 25, 28, 32	Pipe coupling 8°30' in titanium alloy - Unions, bulkhead welded end, for repair
EN3275	EN3083	05, 06, 08, 10, 12, 14, 16, 18, 20, 22, 25, 28, 32	Pipe coupling 8°30' in titanium alloy - Unions, bulkhead, long welded end, for repair
EN3275	EN3084	05, 06, 08, 10, 12, 14, 16, 18, 20, 22, 25, 28, 32	Pipe coupling 8° 30' in titanium alloy, unions, long, welded, for repair
EN3275	EN3243	05, 06, 08, 10, 12, 14, 16, 18, 20, 22, 25, 28, 32	Pipe coupling 8°30' in titanium alloy - Ferrule, welded, with dynamic beam seal end
EN3275	EN3244	05, 06, 08, 10, 12, 14, 16, 18, 20, 22, 25, 28, 32	Pipe coupling 8° 30' in titanium alloy, unions, double ended
EN3275	EN3245	06, 08, 10, 12, 16, 20, 25, 32	Pipe coupling 8° 30' in titanium alloy, unions, reducer
EN3275	EN3246	05, 06, 08, 10, 12, 14, 16, 18, 20, 22, 25, 28, 32	Pipe coupling 8° 30' in titanium alloy, unions, bulkhead
EN3275	EN3247	05, 06, 08, 10, 12, 14, 16, 18, 20, 22, 25, 28, 32	Pipe coupling 8° 30' in titanium alloy, unions, bulkhead, welded
EN3275	EN3264	05, 06, 08, 10, 12, 14, 16, 18, 20, 22, 25, 28	Pipe coupling 8°30' in titanium alloy - Swivel nuts
EN3275	EN3266	05, 06, 08, 10, 12, 14, 16, 18, 20, 22, 25, 28, 32	Pipe coupling in titanium alloy - Bulkhead nuts
	EN3267	05, 06, 08, 10, 12, 14, 16, 18, 20, 22, 25, 28, 32	Washer, bulkhead in titanium alloy

This certificate is valid until / Ce certificat est valable jusqu'au / Dieses Zertifikat ist gültig bis

01-Apr-2023

except if cancelled in the meantime / sauf si annulé entre-temps / sofern zwischenzeitlich nicht widerrufen



Christelle Festaud, ASD-CERT Secretary General  
331-476-57011                      22 September 2021

# PRODUCT QUALIFICATION

## QUALIFICATION DE PRODUIT / ERZEUGNISQUALIFIKATION

CERTIFICATE NO. No DE CERTIFICAT ZERTIFIKAT NR.	<b>PQ052</b>
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Applicable Standard Norme applicable Zutreffende Norm & Publication Date	Standard Number	Designation (or identifiers)	Products Produits Erzeugnisse
EN3275	EN3268	05, 06, 08, 10, 12, 14, 16, 18, 20, 22, 25, 28, 32	Pipe coupling 8°30' in titanium alloy - Pressure plugs
EN3275	EN3269	05, 06, 08, 10, 12, 14, 16, 18, 20, 22, 25, 28, 32	Pipe coupling 8°30' in titanium alloy - Blind ferrules with dynamic beam seal end
EN3275	EN3272	04, 05, 06, 08, 10, 12, 14, 16, 18, 20, 22, 24, 25, 28, 32	Pipe coupling 8°30' - Dynamic beam seal end for nipple, welded - Geometric configuration
EN3275	EN3273	04, 05, 06, 08, 10, 12, 14, 16, 18, 20, 22, 25, 28, 32	Pipe coupling 8°30' - Dynamic beam seal end for elbows, tees and crosses - Geometric configuration
	EN3274	04, 05, 06, 08, 10, 12, 14, 16, 18, 20, 22, 25, 28, 32	Pipe coupling 8°30' - Thread end - Geometric configuration
EN3275	EN3561	06, 08, 10, 12, 14, 16, 18, 20, 22, 25, 28, 32	Pipe coupling 8°30' in titanium alloy - Ferrules with dynamic beam seal end, welded and reduced at pipe end
	EN3688	08, 10, 12, 14, 16, 18, 20, 22, 25, 28, 32	T-ring fillers in titanium alloy for welding pipes - 14 000 kPa nominal pressure
	EN3689	04, 05, 06, 08, 10, 12, 14, 16, 18, 20, 22, 25, 28	T-ring fillers in titanium alloy for welding pipes - 28 000 kPa nominal pressure
EN3275	EN3690	05, 06, 08, 10, 12, 14, 16, 18, 20, 22, 25, 28, 32	Pipe coupling 8°30' in titanium alloy - Unions, bulkhead, long
EN3275	EN3691	05, 06, 08, 10, 12, 14, 16, 18, 20, 22, 25, 28, 32	Pipe coupling 8°30' in titanium alloy - Unions, bulkhead, long, welded
	EN3696	05, 06, 08, 10, 12, 14, 16, 18, 20, 22, 24, 25, 28, 32	Washers in heat resisting steel
EN3275	EN4017	05, 06, 08, 10, 12, 14, 16, 18, 20, 22, 25, 28, 32	Pipe coupling 8°30' in titanium alloy - Elbows 90°

This certificate is valid until / Ce certificat est valable jusqu'au / Dieses Zertifikat ist gültig bis

01-Apr-2023

except if cancelled in the meantime / sauf si annulé entre-temps / sofern zwischenzeitlich nicht widerrufen



Christelle Festaud, ASD-CERT Secretary General  
331-476-57011                      22 September 2021

# PRODUCT QUALIFICATION

## QUALIFICATION DE PRODUIT / ERZEUGNISQUALIFIKATION

CERTIFICATE NO. No DE CERTIFICAT ZERTIFIKAT NR.	<b>PQ052</b>
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Applicable Standard Norme applicable Zutreffende Norm & Publication Date	Standard Number	Designation (or identifiers)	Products Produits Erzeugnisse
EN3275	EN4018	05, 06, 08, 10, 12, 14, 16, 18, 20, 22, 25, 28, 32	Pipe coupling 8°30' in titanium alloy - Elbows 90°, swivel nut
EN3275	EN4019	05, 06, 08, 10, 12, 14, 16, 18, 20, 22, 25, 28, 32	Pipe coupling 8°30' in titanium alloy - Elbows 90°, welded
EN3275	EN4020	05, 06, 08, 10, 12, 14, 16, 18, 20, 22, 25, 28, 32	Pipe coupling 8°30' in titanium alloy - Elbows 90° swivel nut, welded
EN3275	EN4021	05, 06, 08, 10, 12, 14, 16, 18, 20, 22, 25, 28, 32	Pipe coupling 8°30' in titanium alloy - Elbows 90°, bulkhead
EN3275	EN4022	05, 06, 08, 10, 12, 14, 16, 18, 20, 22, 25, 28, 32	Pipe coupling 8°30' in titanium alloy - Elbows 90°, bulkhead, welded
EN3275	EN4023	05, 06, 08, 10, 12, 14, 16, 18, 20, 22, 25, 28, 32	Pipe coupling 8°30' in titanium alloy - Elbows 45°
EN3275	EN4024	05, 06, 08, 10, 12, 14, 16, 18, 20, 22, 25, 28, 32	Pipe coupling 8°30' in titanium alloy - Elbows 45°, swivel nut, welded
EN3275	EN4025	05, 06, 08, 10, 12, 14, 16, 18, 20, 22, 25, 28, 32	Pipe coupling 8°30' in titanium alloy - Elbows 45°, bulkhead
EN3275	EN4026	05, 06, 08, 10, 12, 14, 16, 18, 20, 22, 25, 28, 32	Pipe coupling 8°30' in titanium alloy - Tees
EN3275	EN4027	05, 06, 08, 10, 12, 14, 16, 18, 20, 22, 25, 28, 32	Pipe coupling 8°30' in titanium alloy - Tees, branch with swivel nut
EN3275	EN4028	05, 06, 08, 10, 12, 14, 16, 18, 20, 22, 25, 28, 32	Pipe coupling 8°30' in titanium alloy - Tees, swivel nut on run

This certificate is valid until / Ce certificat est valable jusqu'au / Dieses Zertifikat ist gültig bis

01-Apr-2023

except if cancelled in the meantime / sauf si annulé entre-temps / sofern zwischenzeitlich nicht widerrufen



Christelle Festaud, ASD-CERT Secretary General  
331-476-57011                      22 September 2021



# PRODUCT QUALIFICATION

## QUALIFICATION DE PRODUIT / ERZEUGNISQUALIFIKATION

CERTIFICATE NO. No DE CERTIFICAT ZERTIFIKAT NR.	<b>PQ052</b>
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Applicable Standard Norme applicable Zutreffende Norm & Publication Date	Standard Number	Designation (or identifiers)	Products Produits Erzeugnisse
EN3275	EN4029	05, 06, 08, 10, 12, 14, 16, 18, 20, 22, 25, 28, 32	Pipe coupling 8°30' in titanium alloy - Tees, bulkhead branch
EN3275	EN4030	05, 06, 08, 10, 12, 14, 16, 18, 20, 22, 25, 28, 32	Pipe coupling 8°30' in titanium alloy - Tees, bulkhead run
EN3275	EN4031	05, 06, 08, 10, 12, 14, 16, 18, 20, 22, 25, 28, 32	Pipe coupling 8°30' in titanium alloy - Nuts for welded union
	EN4032	05, 06, 08, 10, 12, 14, 16, 18, 20, 22, 25, 28, 32	Pipe coupling 8°30' in titanium alloy - Thrust wire
EN3275	EN4182	05, 06, 08, 10, 12, 14, 16, 18, 20, 22, 25, 28, 32	Pipe coupling 8° 30 in titanium alloy - Tee, reduced
EN3275	EN4183	05, 06, 08, 10, 12, 14, 16, 18, 20, 22, 25, 28, 32	Pipe coupling 8° 30 in titanium alloy - Elbows 90°, double, welded
EN3275	EN4184	05, 06, 08, 10, 12, 14, 16, 18, 20, 22, 25, 28, 32	Pipe coupling 8° 30 in titanium alloy - Elbows 45°, double, welded
EN3275	EN4185	05, 06, 08, 10, 12, 14, 16, 18, 20, 22, 25, 28, 32	Pipe coupling 8° 30 in titanium alloy - Tees, bulkhead on run long
EN3275	EN4186	05, 06, 08, 10, 12, 14, 16, 18, 20, 22, 25, 28, 32	Pipe coupling 8° 30 in titanium alloy - Cross unions
EN3275	EN4187	05, 06, 08, 10, 12, 14, 16, 18, 20, 22, 25, 28, 32	Pipe coupling 8° 30 in titanium alloy - Elbows 90°, bulkhead, long
EN3275	EN4188	05, 06, 08, 10, 12, 14, 16, 18, 20, 22, 25, 28, 32	Pipe coupling 8° 30 in titanium alloy - Elbows 90°, bulkhead, long, welded

This certificate is valid until / Ce certificat est valable jusqu'au / Dieses Zertifikat ist gültig bis

01-Apr-2023

except if cancelled in the meantime / sauf si annulé entre-temps / sofern zwischenzeitlich nicht widerrufen



Christelle Festaud, ASD-CERT Secretary General  
331-476-57011                      22 September 2021

**PRODUCT QUALIFICATION**  
**QUALIFICATION DE PRODUIT / ERZEUGNISQUALIFIKATION**

CERTIFICATE NO. No DE CERTIFICAT ZERTIFIKAT NR.	<b>PQ052</b>
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Applicable Standard Norme applicable Zutreffende Norm & Publication Date	Standard Number	Designation (or identifiers)	Products Produits Erzeugnisse
EN3275	EN4189	05, 06, 08, 10, 12, 14, 16, 18, 20, 22, 25, 28, 32	Pipe coupling 8° 30 in titanium alloy - Tees, bulkhead branch, long
EN3275	EN4190	05, 06, 08, 10, 12, 14, 16, 18, 20, 22, 25, 28, 32	Pipe coupling 8° 30 in titanium alloy - Tees, reduced, with swivel nut on run
EN3275	EN4191	05, 06, 08, 10, 12, 14, 16, 18, 20, 22, 25, 28, 32	Pipe coupling 8° 30 in titanium alloy - Tees, reduced, bulkhead branch, long
EN3275	EN4192	05, 06, 08, 10, 12, 14, 16, 18, 20, 22, 25, 28, 32	Pipe coupling 8° 30 in titanium alloy - Tees, reduced, bulkhead branch
EN3275	EN4193	05, 06, 08, 10, 12, 14, 16, 18, 20, 22, 25, 28, 32	Pipe coupling 8° 30 in titanium alloy - Tees, reduced, bulkhead on run long
EN3275	EN4194	05, 06, 08, 10, 12, 14, 16, 18, 20, 22, 25, 28, 32	Pipe coupling 8° 30 in titanium alloy - Tees, reduced, bulkhead
EN3275	EN4233	05, 06, 08, 10, 12, 14, 16, 18, 20, 22, 25, 28, 32	Pipe coupling 8°30' in titanium alloy - Unions, welded, threaded
EN3275	EN4610	05, 06, 08, 10, 12, 14, 16, 18, 20, 22, 25, 28, 32	Pipe couplings up to 56000 kPa - Fitting end, welded - Geometrical configuration

This certificate is valid until / Ce certificat est valable jusqu'au / Dieses Zertifikat ist gültig bis

01-Apr-2023

except if cancelled in the meantime / sauf si annulé entre-temps / sofern zwischenzeitlich nicht widerrufen



Christelle Festaud, ASD-CERT Secretary General  
331-476-57011                      22 September 2021

# ASD-CERT

Certification of Aerospace Standard Products

Rue Montoyer, 10  
1000 Brussels  
BELGIUM

Tel. +32 2 775 81 26  
Fax +32 2 775 81 31

## PRODUCT QUALIFICATION / QUALIFICATION DE PRODUIT / ERZEUGNISQUALIFIKATION

CERTIFICATE NO.  
N° DE CERTIFICAT  
ZERTIFIKAT NR. **PQ052 - Renewal**

This is to certify that the manufacturer / Ceci certifie que le fabricant / Hiermit wird bescheinigt, dass der Hersteller

COMPANY NAME : Senior Aerospace Ermeto  
NOM DE SOCIETE : ZA Euro Val de Loire  
FIRMA : 8 rue du Clos Thomas  
41330 FOSSE  
France

PLACE OF MANUFACTURE : As above  
LIEU DE FABRICATION :  
HERSTELLUNGSORT :

has met the requirements of EN9133 in respect of the following standards:  
a satisfait les exigences de l'EN9133 en ce qui concerne les normes suivantes:  
die Forderungen der EN9133 erfüllt unter Berücksichtigung der folgenden Normen:

Applicable Standard Norme applicable Zutreffende Norm	Products Produits Erzeugnisse	Report No. Issue Date ASD-CERT Mandated Body
EN3275 <b>Fire Test not Performed</b>	<b>Fire Test not Performed</b> See the Appendix for the Qualified part number list	Report: N°539 for_SAE_ACP005 Form2- 2017/04/04 Heinrich HACKMANN - AIRBUS

This certificate is valid until / Ce certificat est valable jusqu'au / Dieses Zertifikat ist gültig bis

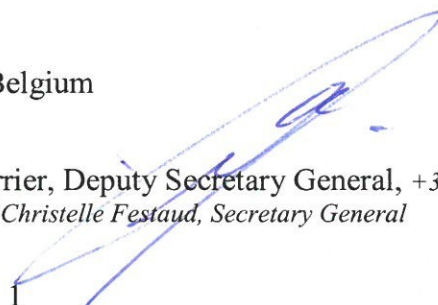
**APRIL 2020**

except if cancelled in the meantime / sauf si annulé entre-temps / sofern zwischenzeitlich nicht widerrufen

DATE :  
DATE : 13/04/2017  
DATUM :

PLACE :  
A : Brussels, Belgium  
ORT :

SIGNATURE : Patrick Terrier, Deputy Secretary General, +33 1 47 65 70 14  
SIGNATURE : On behalf of Christelle Festaud, Secretary General  
UNTERSCHRIFT :



ASD-CERT

PQ 052 - Appendix 1 for the Qualified part number list

SENIOR AEROSPACE ERMETO - PQ 052 AECMA-CERT

Products Fitting 8°30' Titanium alloy up to 28000 Kpa	Report No/issue/date
EN 2656	
EN 3080	
EN 3081	
EN 3082	
EN 3083	
EN 3084	
EN 3243	
EN 3244	
EN 3245	
EN 3246	
EN 3247	
EN 3264	
EN 3266	
EN 3267	
EN 3268	
EN 3269	
EN 3272	
EN 3273	
EN 3274	
EN 3561	
EN 3688	
EN 3689	
EN 3690	
EN 3691	
EN 3696	
EN 4017 (was 3249)	
EN 4018 (was 3250)	
EN 4019 (was 3251)	
EN 4020 (was 3252)	
EN 4021 (was 3253)	
EN 4022 (was 3254)	
EN 4023 (was 3255)	
EN 4024 (was 3256)	
EN 4025 (was 3257)	
EN 4026 (was 3258)	
EN 4027 (was 3260)	
EN 4028 (was 3261)	
EN 4029 (was 3262)	
EN 4030 (was 3263)	
EN 4031 (was 3265)	
EN 4032 (was 3271)	
EN 4182 (was 3259)	
EN 4183 (was 3562)	
EN 4184 (was 3563)	
EN 4185 (was 3564)	
EN 4186 (was 3565)	
EN 4187 (was 3692)	
EN 4188 (was 3693)	
EN 4189 (was 3694)	
EN 4190 (was 3695)	
EN 4191 (was 3784)	
EN 4192 (was 3785)	
EN 4193 (was 3786)	
EN 4194 (was 3787)	
EN 4233 (was 3242)	
EN 4610	
	<p><b>SENIOR AEROSPACE ERMETO</b> Lab B067 (16-09-1996)</p> <p>DGA Test reports : N° E 450800-01 + E 450800-02 final June 1994</p> <p>EADS GTR-J-290-M-0337-Y issue A EADS GTR-J-290-M-0338-Y issue A</p> <p><b>SENIOR AEROSPACE ERMETO</b> J019 DN10 issue 0 + J019 DN20 issue A</p> <p>EADS GTR-J-290-M-0329-Y issue A</p>



1/2 8°30 products list.xls

# ASD-CERT

Certification of Aerospace Standard Products

Rue Montoyer, 10  
1000 Brussels  
BELGIUM

Tel. +32 2 775 81 26  
Fax +32 2 775 81 31

## PRODUCT QUALIFICATION / QUALIFICATION DE PRODUIT / ERZEUGNISQUALIFIKATION

CERTIFICATE NO. N° DE CERTIFICAT ZERTIFIKAT NR.	<b>PQ 052</b>
---	---------------

This is to certify that the manufacturer / Ceci certifie que le fabricant / Hiermit wird bescheinigt, dass der Hersteller

COMPANY NAME : Senior Aerospace Ermeto  
NOM DE SOCIETE : ZA Euro Val de Loire  
FIRMA : 8 rue du Clos Thomas  
41330 FOSSE  
France

PLACE OF MANUFACTURE : As above  
LIEU DE FABRICATION :  
HERSTELLUNGSORT :

has met the requirements of EN9133 in respect of the following standards:  
a satisfait les exigences de l'EN9133 en ce qui concerne les normes suivantes:  
die Forderungen der EN9133 erfüllt unter Berücksichtigung der folgenden Normen:

Applicable Standard Norme applicable Zutreffende Norm	Products Produits Erzeugnisse	Report No. Issue Date ASD-CERT Mandated Body
EN3275 <b>Fire Test not Performed</b>	<b>Fire Test not Performed</b> See the Appendix for the Qualified part number list	Report: N°222 for SAE_ACP005 Form2- 2013/08/30 Heinrich Hackmann, CASSIDIAN

This certificate is valid until / Ce certificat est valable jusqu'au / Dieses Zertifikat ist gültig bis

**MAY 2017**

except if cancelled in the meantime / sauf si annulé entre-temps / sofern zwischenzeitlich nicht widerrufen

DATE :  
DATE : 28/04/2014  
DATUM :

PLACE :  
A : Brussels, Belgium  
ORT :

SIGNATURE : Thierry Grenot, Secretary General, +33 1 47 65 70 18



**ASD-CERT**  
**PQ 052 - Appendix 1 for the Qualified part number list**

SENIOR AEROSPACE ERMETO - PQ 052 AECMA-CERT

Products Fitting 8°30' Titanium alloy up to 28000 Kpa	Report No/issue/date
EN 2656	
EN 3080	
EN 3081	
EN 3082	
EN 3083	
EN 3084	
EN 3243	
EN 3244	
EN 3245	
EN 3246	
EN 3247	
EN 3264	
EN 3266	
EN 3267	
EN 3268	
EN 3269	
EN 3272	
EN 3273	
EN 3274	
EN 3561	
EN 3688	
EN 3689	
EN 3690	
EN 3691	
EN 3696	
EN 4017 (was 3249)	
EN 4018 (was 3250)	
EN 4019 (was 3251)	
EN 4020 (was 3252)	
EN 4021 (was 3253)	
EN 4022 (was 3254)	
EN 4023 (was 3255)	
EN 4024 (was 3256)	
EN 4025 (was 3257)	
EN 4026 (was 3258)	
EN 4027 (was 3260)	
EN 4028 (was 3261)	
EN 4029 (was 3262)	
EN 4030 (was 3263)	
EN 4031 (was 3265)	
EN 4032 (was 3271)	
EN 4182 (was 3259)	
EN 4183 (was 3562)	
EN 4184 (was 3563)	
EN 4185 (was 3564)	
EN 4186 (was 3565)	
EN 4187 (was 3692)	
EN 4188 (was 3693)	
EN 4189 (was 3694)	
EN 4190 (was 3695)	
EN 4191 (was 3784)	
EN 4192 (was 3785)	
EN 4193 (was 3786)	
EN 4194 (was 3787)	
EN 4233 (was 3242)	
EN 4610	

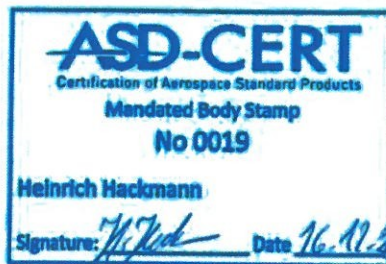
**SENIOR AEROSPACE ERMETO**  
**Lab B067 (16-09-1996)**

**DGA Test reports : N°E 450800-01**  
**+ E 450800-02 final June 1994**

**EADS GTR-J-290-M-0337-Y issue A**  
**EADS GTR-J-290-M-0338-Y issue A**

**SENIOR AEROSPACE ERMETO**  
**J019 DN10 issue 0 + J019 DN20 issue A**

**EADS GTR-J-290-M-0329-Y issue A**



RT

d Products

*[Handwritten Signature]*



ace Standard Products

Ave de Tervuren, 270  
1150 Brussels  
BELGIUM

Tel. +32 2 775 8114  
Fax +32 2 775 8111

## PRODUCT QUALIFICATION / QUALIFICATION DE PRODUIT / ERZEUGNISQUALIFIKATION

CERTIFICATE NO. **PQ 052**  
N° DE CERTIFICAT  
ZERTIFIKAT NR.

This is to certify that the manufacturer / Ceci certifie que le fabricant / Hiermit wird bescheinigt, dass der Hersteller

COMPANY NAME : Senior Aerospace Ermeto  
NOM DE SOCIETE : ZA Euro Val de Loire  
FIRMA : 8 rue du Clos Thomas  
41330 FOSSE  
France

PLACE OF MANUFACTURE : As above  
LIEU DE FABRICATION :  
HERSTELLUNGSORT :

has met the requirements of EN9133 in respect of the following standards:  
a satisfait les exigences de l'EN9133 en ce qui concerne les normes suivantes:  
die Forderungen der EN9133 erfüllt unter Berücksichtigung der folgenden Normen:

Applicable Standard Norme applicable Zutreffende Norm	Products Produits Erzeugnisse	Report No. Issue Date ASD-CERT Mandated Body
EN3275	See list and amendment attached	See list attached

This certificate is valid until / Ce certificat est valable jusqu'au / Dieses Zertifikat ist gültig bis

**October 2013**

except if cancelled in the meantime / sauf si annulé entre-temps / sofern zwischenzeitlich nicht widerrufen

DATE :  
DATE : 4<sup>th</sup> October 2010  
DATUM :

PLACE :  
A : Brussels, Belgium  
ORT :

SIGNATURE : Thierry GRENOT, Secretary General, +33 1 47 65 70 18  
SIGNATURE :  
UNTERSCHRIFT :

SENIOR AEROSPACE ERMETO - PQ 052 AECMA-CERT

Products Fitting 8°30' Titanium alloy up to 28000 Kpa	Report No/issue/date
EN 2656 ✓ EN 3080 EN 3081 ✓ EN 3082 EN 3083 EN 3084 EN 3243 EN 3244 EN 3245 EN 3246 EN 3247 EN 3264 EN 3266 EN 3267 EN 3268 EN 3269 EN 3272 EN 3273 EN 3274 EN 3561 EN 3688 EN 3689 EN 3690 EN 3691 EN 3696 EN 4017 (was 3249) EN 4018 (was 3250) EN 4019 (was 3251) EN 4020 (was 3252) EN 4021 (was 3253) EN 4022 (was 3254) EN 4023 (was 3255) EN 4024 (was 3256) EN 4025 (was 3257) EN 4026 (was 3258) EN 4027 (was 3260) EN 4028 (was 3261) EN 4029 (was 3262) EN 4030 (was 3263) EN 4031 (was 3265) EN 4032 (was 3271) EN 4182 (was 3259) EN 4183 (was 3562) EN 4184 (was 3563) EN 4185 (was 3564) EN 4186 (was 3565) EN 4187 (was 3692) EN 4188 (was 3693) EN 4189 (was 3694) EN 4190 (was 3695) EN 4191 (was 3784) EN 4192 (was 3785) EN 4193 (was 3786) EN 4194 (was 3787) EN 4233 (was 3242) EN 4610	<p style="text-align: center;"><b>SENIOR AEROSPACE ERMETO</b> Lab B067 (16-09-1996)</p> <p style="text-align: center;"><b>DGA Test reports : N°E 450800-01</b> + E 450800-02 final June 1994</p> <p style="text-align: center;"><b>EADS GTR-J-290-M-0337-Y issue A</b> <b>EADS GTR-J-290-M-0338-Y issue A</b></p> <p style="text-align: center;"><b>SENIOR AEROSPACE ERMETO</b> <b>J019 DN10 issue 0 + J019 DN20 issue A</b></p> <p style="text-align: center;"><b>EADS GTR-J-290-M-0329-Y issue A</b></p>

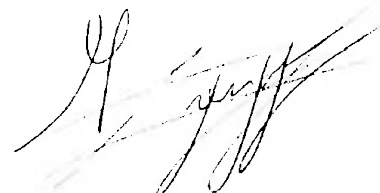
T. GRENOT  
*[Handwritten Signature]*



SENIOR AEROSPACE ERMETO - PQ 052 AECMA-CERT

<p><b>Only shaped parts, Products Fitting 8°30' Titanium alloy up to 28000 Kpa</b></p>	<p><b>Report No/issue/date</b></p>
<p>EN 3080                      EN 4017 (was 3249)                      EN 4018 (was 3250)                      EN 4019 (was 3251)                      EN 4020 (was 3252)                      EN 4021 (was 3253)                      EN 4022 (was 3254)                      EN 4023 (was 3255)                      EN 4024 (was 3256)                      EN 4025 (was 3257)                      EN 4026 (was 3258)                      EN 4027 (was 3260)                      EN 4028 (was 3261)                      EN 4029 (was 3262)                      EN 4030 (was 3263)                      EN 4182 (was 3259)                      EN 4183 (was 3562)                      EN 4184 (was 3563)                      EN 4185 (was 3564)                      EN 4186 (was 3565)                      EN 4187 (was 3692)                      EN 4188 (was 3693)                      EN 4189 (was 3694)                      EN 4190 (was 3695)                      EN 4191 (was 3784)                      EN 4192 (was 3785)                      EN 4193 (was 3786)                      EN 4194 (was 3787)                      EN 4610</p>	<p><b>SENIOR AEROSPACE ERMETO                      Lab B067 (16-09-1996)</b></p> <p><b>DGA Test reports : N°E 450800-01                      + E 450800-02 final June 1994</b></p> <p><b>EADS GTR-J-290-M-0337-Y issue A                      EADS GTR-J-290-M-0338-Y issue A</b></p> <p><b>SENIOR AEROSPACE ERMETO                      J019 DN10 issue 0 + J019 DN20 issue A</b></p> <p><b>EADS GTR-J-290-M-0329-Y issue A</b></p>

T. GRENOT



# ASD-CERT

Certification of Aerospace Standard Products

Ave de Tervuren, 270  
1150 Brussels  
BELGIUM

Tel. +32 2 775 8114  
Fax +32 2 775 8111

## PRODUCT QUALIFICATION / QUALIFICATION DE PRODUIT / ERZEUGNISQUALIFIKATION

CERTIFICATE NO. **PQ 052**  
N° DE CERTIFICAT  
ZERTIFIKAT NR.

This is to certify that the manufacturer / Ceci certifie que le fabricant / Hiermit wird bescheinigt, dass der Hersteller

COMPANY NAME : Senior Aerospace Ermeto  
NOM DE SOCIETE : ZA Euro Val de Loire  
FIRMA : 8 rue du Clos Thomas  
41330 FOSSE  
France

PLACE OF MANUFACTURE :  
LIEU DE FABRICATION : as above  
HERSTELLUNGSORT :

has met the requirements of EN9133 in respect of the following standards:  
a satisfait les exigences de l'EN9133 en ce qui concerne les normes suivantes:  
die Forderungen der EN9133 erfüllt unter Berücksichtigung der folgenden Normen:

Applicable Standard Norme applicable Zutreffende Norm	Products Produits Erzeugnisse	Report No. Issue Date ASD-CERT Mandated Body
EN3275	See list and amendment attached	See list attached

This certificate is valid until / Ce certificat est valable jusqu'au / Dieses Zertifikat ist gültig bis

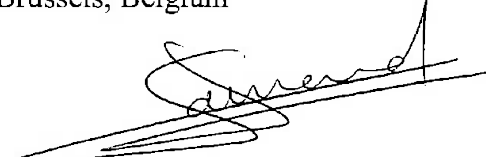
**May 2010**

except if cancelled in the meantime / sauf si annulé entre-temps / sofern zwischenzeitlich nicht widerrufen

DATE :  
DATE : 01 October 2007  
DATUM :

PLACE :  
A : Brussels, Belgium  
ORT :

SIGNATURE :  
SIGNATURE :  
UNTERSCHRIFT :



Stéphane Laumond, Secretary General, +33 1 47 60 70 18

Attachment to PQ 052

Amendment :

- Addition of material "Bar" (EN3311, EN3314), as an alternative to material "Forged" (EN3312, EN3315) for EN shaped parts,
- Introduction of alternative MoS2 3400A Lead-free,
- Improvement of EN3272/EN3273 Lip interface for size Ø14 mm and size Ø20 mm.

Products Fitting 8°30' Titanium alloy up to 28000 Kpa	Report No/issue/date
EN 2656 ✓ EN 3080 EN 3081 EN 3082 EN 3083 EN 3084 EN 3243 EN 3244 EN 3245 EN 3246 EN 3247 EN 3264 EN 3266 EN 3267 EN 3268 EN 3269 EN 3272 EN 3273 EN 3274 EN 3561 EN 3688 EN 3689 EN 3690 EN 3691 EN 3696 EN 4017 (was 3249) EN 4018 (was 3250) EN 4019 (was 3251) EN 4020 (was 3252) EN 4021 (was 3253) EN 4022 (was 3254) EN 4023 (was 3255) EN 4024 (was 3256) EN 4025 (was 3257) EN 4026 (was 3258) EN 4027 (was 3260) EN 4028 (was 3261) EN 4029 (was 3262) EN 4030 (was 3263) EN 4031 (was 3265) EN 4032 (was 3271) EN 4182 (was 3259) EN 4183 (was 3562) EN 4184 (was 3563) EN 4185 (was 3564) EN 4186 (was 3565)	<div style="text-align: center; font-size: 2em; opacity: 0.2; font-weight: normal;">SECRET</div> <p style="text-align: center; margin-top: 20px;"> <b>SENIOR AEROSPACE ERMETO Lab B067 (16-09-1996)</b>              + DGA Test reports : N° E 450800-01                + E 450800-02 final June 1994              + EADS GTR-J-290-M-0337-Y issue A              + EADS GTR-J-290-M-0338-Y issue A              + SENIOR AEROSPACE ERMETO J019 DN10 issue 0                + J019 DN20 issue A           </p>

Products Fitting 8°30' Titanium alloy up to 28000 Kpa	Report No/issue/date
EN 4187 (was 3692) EN 4188 (was 3693) EN 4189 (was 3694) EN 4190 (was 3695) EN 4191 (was 3784) EN 4192 (was 3785) EN 4193 (was 3786) EN 4194 (was 3787) EN 4233 (was 3242) EN 4610	<b>SENIOR AEROSPACE ERMETO Lab B067 (16-09-1996)</b> + DGA Test reports : N° E 450800-01 + E 450800-02 final June 1994 + EADS GTR-J-290-M-0337-Y issue A + EADS GTR-J-290-M-0338-Y issue A + SENIOR AEROSPACE ERMETO J019 DN10 issue 0 + J019 DN20 issue A

<b>Only shaped parts,</b> Products Fitting 8°30' Titanium alloy up to 28000 Kpa	Report No/issue/date
EN 3080 EN 4017 (was 3249) EN 4018 (was 3250) EN 4019 (was 3251) EN 4020 (was 3252) EN 4021 (was 3253) EN 4022 (was 3254) EN 4023 (was 3255) EN 4024 (was 3256) EN 4025 (was 3257) EN 4026 (was 3258) EN 4027 (was 3260) EN 4028 (was 3261) EN 4029 (was 3262) EN 4030 (was 3263) EN 4182 (was 3259) EN 4183 (was 3562) EN 4184 (was 3563) EN 4185 (was 3564) EN 4186 (was 3565) EN 4187 (was 3692) EN 4188 (was 3693) EN 4189 (was 3694) EN 4190 (was 3695) EN 4191 (was 3784) EN 4192 (was 3785) EN 4193 (was 3786) EN 4194 (was 3787) EN 4610	<b>SENIOR AEROSPACE ERMETO Lab B067 (16-09-1996)</b> + DGA Test reports : N° E 450800-01 + E 450800-02 final June 1994 + EADS GTR-J-290-M-0337-Y issue A + EADS GTR-J-290-M-0338-Y issue A + SENIOR AEROSPACE ERMETO J019 DN10 issue 0 + J019 DN20 issue A + EADS GTR-J-290-M-0329-Y issue A

# AECMA-CERT

THE EUROPEAN ASSOCIATION OF AEROSPACE INDUSTRIES - CERTIFICATION

Gulledelle 94  
B-1200 Bruxelles  
Belgium

Tel. (32) 2 775 8110  
Fax (32) 2 775 8111

PRODUCT QUALIFICATION  
QUALIFICATION DE PRODUIT  
ERZEUGNIS-QUALIFIKATION

CERTIFICATE NO. N° DE CERTIFICAT ZERTIFIKAT NR.	<b>PQ 052</b> <b>Amendment</b>
---	-----------------------------------

This is to certify that the manufacturer/Ceci certifie que le fabricant/Hiermit wird bescheinigt, daß der Hersteller

COMPANY NAME: **SENIOR AEROSPACE ERMETO**  
NOM DE SOCIETE:  
FIRMA: **Z.A. Euro Val de Loire**  
**8, rue du Clos Thomas**  
PLACE OF MANUFACTURE: **F-41330 Fosse**  
LIEU DE FABRICATION: **France**  
HERSTELLUNGSORT:

has met the requirements of EN 9133 in respect of the following standards:  
a satisfait les exigences de l'EN 9133 en ce qui concerne les normes suivantes :  
die Forderungen der EN 9133 erfüllt unter Berücksichtigung der folgenden Normen:

Applicable standard Norme applicable Zutreffende Norm	Products Produits Erzeugnisse	Report N°./Issue/Date
EN 3275	List Attached. Amendment Attached: Addition of material "Bar" (EN 3311; En 3314), as an alternative to material "Forged" (EN 3312; EN3315) for EN shaped parts.	List attached. See amendment

This certificate is valid until/Ce certificat est valable jusqu'au/Dieses Zertifikat ist gültig bis

MARCH 2007

except if cancelled in the meantime/sauf si annulé entre-temps/sofern zwischenzeitlich nicht widerrufen.

DATE:  
DATE: 15 March 2005  
DATUM:  
PLACE:  
A: Brussels  
ORT:



SIGNATURE:  
SIGNATURE:  
UNTERSCHRIFT:

Products	Report No/Issue /dates
Fitting 8°30' Titanium alloy up to 28000 Kpa	DGA Test reports: No E 450800-1 E 450800-2 final June 1994 S.F.E. Lab B067 · 16.09.1996 DT 153/E September 1996 No BEAP2000-127 15.09.2000 No JR/90-01-4006 C4/PQ002 ERH001/03/03 dated 19.09.00
EN 2656 EN 4233 (3242) EN 3274 EN 3243 EN 4018 (3250) EN 4020 (3252) EN 4028 (3261) EN 3244 EN 3245 EN 3246 EN 3247 EN 4017 (3249) EN 4019 (3251) EN 4021 (3253) EN 4022 (3254) EN 4023 (3255) EN 4024 (3256) EN 4025 (3257) EN 4026 (3258) EN 4027 (3260) EN 4030 EN 4029 (3262) EN 4031 (3265) EN 3272 EN 3273 EN 3264 EN 3266 EN 3267 EN 3268 EN 3269 EN 4032 (3271) EN 4182 (3259) EN 3561 EN 4183 (3562) EN 4184 (3563) EN 4185 (3564) EN 4186 (3565) EN 3688 EN 3689 EN 3690 EN 3691 EN 4187 (3692) EN 4188 (3693) EN 4189 (3694) EN 4190 (3695) EN 3696 EN 4191 (3784) EN 4192 (3785) EN 4193 (3786) EN 4194 (3787) EN 3081 EN 3084	

Only shaped parts, Products Fitting 8°30' Titanium alloy up to 28000 Kpa	Report No/issue/date
<p>EN 4017 (was 3249)                      EN 4018 (was 3250)                      EN 4019 (was 3251)                      EN 4020 (was 3252)                      EN 4021 (was 3253)                      EN 4022 (was 3254)                      EN 4023 (was 3255)                      EN 4024 (was 3256)                      EN 4025 (was 3257)                      EN 4026 (was 3258)                      EN 4027 (was 3260)                      EN 4028 (was 3261)                      EN 4029 (was 3262)                      EN 4030 (was 3263)                      EN 4182 (was 3259)                      EN 4183 (was 3562)                      EN 4184 (was 3563)                      EN 4185 (was 3564)                      EN 4186 (was 3565)                      EN 4187 (was 3692)                      EN 4188 (was 3693)                      EN 4189 (was 3694)                      EN 4190 (was 3695)                      EN 4191 (was 3784)                      EN 4192 (was 3785)                      EN 4193 (was 3786)                      EN 4194 (was 3787)                      EN 4610</p>	<p>SENIOR AEROSPACE ERMETO Lab B067 (16-09-1996)                      + DGA Test reports : N° E 450800-01 + E 450800-02 final June 1994                      + CETIM Test report 765232/141224/681 (20-04-2004)                      + EADS Test report GTR-J-290-M-0329-Y issue A (31-07-2004)</p>

# AECMA-CERT

# DRAFT

AEROSPACE INDUSTRIES - CERTIFICATION

Tel. (32) 2 775 8110  
Fax (32) 2 775 8111

PRODUCT QUALIFICATION  
QUALIFICATION DE PRODUIT  
ERZEUGNIS-QUALIFIKATION

CERTIFICATE NO.  
N° DE CERTIFICAT  
ZERTIFIKAT NR.

**PQ 052**  
**Amendment**

This is to certify that the manufacturer/Ceci certifie que le fabricant/Hiermit wird bescheinigt, daß der Hersteller

COMPANY NAME: SENIOR AEROSPACE ERMETO  
NOM DE SOCIETE:  
FIRMA:

Z.A. Euro Val de Loire

PLACE OF MANUFACTURE: 8, rue du Clos Thomas  
LIEU DE FABRICATION: F-41330 Fosse  
HERSTELLUNGSORT: France

has met the requirements of EN 9133 in respect of the following standards:  
a satisfait les exigences de l'EN 9133 en ce qui concerne les normes suivantes :  
die Forderungen der EN 9133 erfüllt unter Berücksichtigung der folgenden Normen:

Applicable standard Norme applicable Zutreffende Norm	Products Produits Erzeugnisse	Report N°/Issue/Date
EN 3275	List attached. Amendment Attached: Addition of material "Bar" (EN 3311; EN 3314), as an alternative to material "Forged" (EN 3312; EN3315) for EN shaped parts.	List attached. See amendment.

This certificate is valid until/Ce certificat est valable jusqu'au/Dieses Zertifikat ist gültig bis

MARCH 2007

except if cancelled in the meantime/sauf si annulé entre-temps/sofern zwischenzeitlich nicht widerrufen.

DATE:  
DATE: 15 March 2005  
DATUM:

PLACE:  
A: Brussels  
ORT:

SIGNATURE-  
SIGNATURE:  
UNTERSCHRIFT.



## Attachment to PQ 052

Products	Report No/Issue /dates
Fitting 8°30' Titanium alloy up to 28000 Kpa	DGA Test reports: No E 450800-1 E 450800-2 final June 1994 S.F.E. Lab B067 16.09.1996 DT 153/E September 1996 No BEAP2000-127 15.09.2000 No JR/90-01-4006 C4/PQ002 ERH001/03/03 dated 19.09.00
EN 2656 EN 4233 (3242) EN 3274 EN 3243 EN 4018 (3250) EN 4020 (3252) EN 4028 (3261) EN 3244 EN 3245 EN 3246 EN 3247 EN 4017 (3249) EN 4019 (3251) EN 4021 (3253) EN 4022 (3254) EN 4023 (3255) EN 4024 (3256) EN 4025 (3257) EN 4026 (3258) EN 4027 (3260) EN 4030 EN 4029 (3262) EN 4031 (3265) EN 3272 EN 3273 EN 3264 EN 3266 EN 3267 EN 3268 EN 3269 EN 4032 (3271) EN 4182 (3259) EN 3561 EN 4183 (3562) EN 4184 (3563) EN 4185 (3564) EN 4186 (3565) EN 3688 EN 3689 EN 3690 EN 3691 EN 4187 (3692) EN 4188 (3693) EN 4189 (3694) EN 4190 (3695) EN 3696 EN 4191 (3784) EN 4192 (3785) EN 4193 (3786) EN 4194 (3787) EN 3081 EN 3084	

Only shaped parts, Products Fitting 8°30' Titanium alloy up to 28000 Kpa	Report No/issue/date
<p>EN 4017 (was 3249)                      EN 4018 (was 3250)                      EN 4019 (was 3251)                      EN 4020 (was 3252)                      EN 4021 (was 3253)                      EN 4022 (was 3254)                      EN 4023 (was 3255)                      EN 4024 (was 3256)                      EN 4025 (was 3257)                      EN 4026 (was 3258)                      EN 4027 (was 3260)                      EN 4028 (was 3261)                      EN 4029 (was 3262)                      EN 4030 (was 3263)                      EN 4182 (was 3259)                      EN 4183 (was 3562)                      EN 4184 (was 3563)                      EN 4185 (was 3564)                      EN 4186 (was 3565)                      EN 4187 (was 3692)                      EN 4188 (was 3693)                      EN 4189 (was 3694)                      EN 4190 (was 3695)                      EN 4191 (was 3784)                      EN 4192 (was 3785)                      EN 4193 (was 3786)                      EN 4194 (was 3787)                      EN 4610</p>	<p>SENIOR AEROSPACE ERMETO Lab B067 (16-09-1996)                      + DGA Test reports : N° E 450800-01 + E 450800-02 final June 1994                      + CETIM Test report 765232/141224/681 (20-04-2004)                      + EADS Test report GTR-J-290-M-0329-Y issue A (31-07-2004)</p>

# AECMA-CERT

THE EUROPEAN ASSOCIATION OF AEROSPACE INDUSTRIES - CERTIFICATION

Gulledelle 94  
B-1200 Bruxelles  
Belgium

Tel. (32) 2 775 8110  
Fax (32) 2 775 8111

PRODUCT QUALIFICATION  
QUALIFICATION DE PRODUIT  
ERZEUGNIS-QUALIFIKATION

CERTIFICATE NO.  
N° DE CERTIFICAT PQ 052  
ZERTIFIKAT NR.

This is to certify that the manufacturer/Ceci certifie que le fabricant/Hiermit wird bescheinigt, daß der Hersteller

COMPANY NAME: SENIOR AEROSPACE ERMETO  
NOM DE SOCIETE:  
FIRMA:

PLACE OF MANUFACTURE: Z.A. Euro Val de Loire  
LIEU DE FABRICATION: 8, rue du Clos Thomas  
HERSTELLUNGSORT: F-41330 Fosse  
France

has met the requirements of EN 3042 in respect of the following standards:  
a satisfait les exigences de l'EN 3042 en ce qui concerne les normes suivantes:  
die Forderungen der EN 3042 erfüllt unter Berücksichtigung der folgenden Normen:

Applicable standard Norme applicable Zutreffende Norm	Products Produits Erzeugnisse	Report N° /Issue/Date
EN 3275	List attached	List attached

This certificate is valid until/Ce certificat est valable jusqu'au/Dieses Zertifikat ist gültig bis

MARCH 2007

except if cancelled in the meantime/sauf si annulé entre-temps/sofern zwischenzeitlich nicht widerrufen.

DATE: 4 May 2004  
DATE:  
DATUM:

PLACE: Brussels  
A:  
ORT:



SIGNATURE:  
SIGNATURE:  
UNTERSCHRIFT:

Attachment to PQ 052

Products	Report No/Issue /dates
Fitting 8°30' Titanium alloy up to 28000 Kpa	DGA Test reports: No E 450800-1 E 450800-2 final June 1994 S.F.E. Lab B067 16.09.1996 DT 153/E September 1996 No BEAP2000-127 15.09.2000 No JR/90-01-4006 C4/PQ002 ERH001/03/03 dated 19.09.00
EN 2656 EN 4233 (3242) EN 3274 EN 3243 EN 4018 (3250) EN 4020 (3252) EN 4028 (3261) EN 3244 EN 3245 EN 3246 EN 3247 EN 4017 (3249) EN 4019 (3251) EN 4021 (3253) EN 4022 (3254) EN 4023 (3255) EN 4024 (3256) EN 4025 (3257) EN 4026 (3258) EN 4027 (3260) EN 4030 EN 4029 (3262) EN 4031 (3265) EN 3272 EN 3273 EN 3264 EN 3266 EN 3267 EN 3268 EN 3269 EN 4032 (3271) EN 4182 (3259) EN 3561 EN 4183 (3562) EN 4184 (3563) EN 4185 (3564) EN 4186 (3565) EN 3688 EN 3689 EN 3690 EN 3691 EN 4187 (3692) EN 4188 (3693) EN 4189 (3694) EN 4190 (3695) EN 3696 EN 4191 (3784) EN 4192 (3785) EN 4193 (3786) EN 4194 (3787) EN 3081 EN 3084	

# AECMA-CERT

THE EUROPEAN ASSOCIATION OF AEROSPACE INDUSTRIES - CERTIFICATION

Gulledelle 94  
B-1200 Bruxelles  
Belgium

Tel. (32) 2 775 8110  
Fax (32) 2 775 8111

PRODUCT QUALIFICATION  
QUALIFICATION DE PRODUIT  
ERZEUGNIS-QUALIFIKATION

CERTIFICATE NO.  
N° DE CERTIFICAT PQ 052  
ZERTIFIKAT NR.

This is to certify that the manufacturer/Ceci certifie que le fabricant/Hiermit wird bescheinigt, daß der Hersteller

COMPANY NAME: SENIOR FLEXONICS ERMETO  
NOM DE SOCIETE:  
FIRMA:

PLACE OF MANUFACTURE: 16, Rue Claude Bernard  
LIEU DE FABRICATION: F-41000 Blois  
HERSTELLUNGSSORT: FRANCE

has met the requirements of EN 3042 in respect of the following standards:  
a satisfait les exigences de l'EN 3042 en ce qui concerne les normes suivantes:  
die Forderungen der EN 3042 erfüllt unter Berücksichtigung der folgenden Normen:

Applicable standard Norme applicable Zutreffende Norm	Products Produits Erzeugnisse	Report N° /Issue/Date
EN 3275	List attached	List attached

This certificate is valid until/Ce certificat est valable jusqu'au/Dieses Zertifikat ist gültig bis

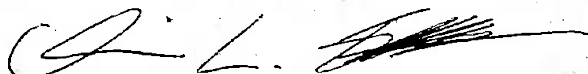
MARCH 2004

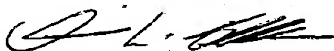
except if cancelled in the meantime/sauf si annulé entre-temps/sofern zwischenzeitlich nicht widerrufen.

DATE: 2 March 2001.  
DATE:  
DATUM:

PLACE: Brussels  
A:  
ORT:

SIGNATURE:  
SIGNATURE:  
UNTERSCHRIFT:



Products	Report No/Issue /dates
Fitting 8"30' Titanium alloy up to 28000 Kpa	DGA Test reports: No E 450800-1 E 450800-2 final June 1994 S.F.E. Lab B067 16.09.1996 DT 153/E September 1996 No BEAP2000-127 15.09.2000 No JR/90-01-4006 C4/PQ002 ERH001/03/03 dated 19.09.00
EN 2656 EN 4233 (3242) EN 3274 EN 3243 EN 4018 (3250) EN 4020 (3252) EN 4028 (3261) EN 3244 EN 3245 EN 3246 EN 3247 EN 4017 (3249) EN 4019 (3251) EN 4021 (3253) EN 4022 (3254) EN 4023 (3255) EN 4024 (3256) EN 4025 (3257) EN 4026 (3258) EN 4027 (3260) EN 4030 EN 4029 (3262) EN 4031 (3265) EN 3272 EN 3273 EN 3264 EN 3266 EN 3267 EN 3268 EN 3269 EN 4032 (3271) EN 4182 (3259) EN 3561 EN 4183 (3562) EN 4184 (3563) EN 4185 (3564) EN 4186 (3565) EN 3688 EN 3689 EN 3690 EN 3691 EN 4187 (3692) EN 4188 (3693) EN 4189 (3694) EN 4190 (3695) EN 3696 EN 4191 (3784) EN 4192 (3785) EN 4193 (3786) EN 4194 (3787) EN 3081 EN 3084	

# AECMA-CERT

THE EUROPEAN ASSOCIATION OF AEROSPACE INDUSTRIES - CERTIFICATION

Gulledelle 94  
B-1200 Bruxelles  
Belgium

Tel. (32) 2 775 8110  
Fax (32) 2 775 8111

**PRODUCT QUALIFICATION  
QUALIFICATION DE PRODUIT  
ERZEUGNIS-QUALIFIKATION**

**CERTIFICATE NO.** PQ 052  
**N° DE CERTIFICAT**  
**ZERTIFIKAT NR.**

This is to certify that the manufacturer/Ceci certifie que le fabricant/Hiermit wird bescheinigt, daß der Hersteller

**COMPANY NAME:** SENIOR FLEXONICS ERMETO  
**NOM DE SOCIETE:**  
**FIRMA:** 16, Rue Claude Bernard  
F-41000 Blois  
**PLACE OF MANUFACTURE:** FRANCE  
**LIEU DE FABRICATION:**  
**HERSTELLUNGSORT:**

has met the requirements of **EN 3042** in respect of the following standards:  
a satisfait les exigences de l'**EN 3042** en ce qui concerne les normes suivantes:  
die Forderungen der **EN 3042** erfüllt unter Berücksichtigung der folgenden Normen:

Applicable standard Norme applicable Zutreffende Norm	Products Produits Erzeugnisse	Report N°./Issue/Date
EN 3275	list attached	list attached

This certificate is valid until/Ce certificat est valable jusqu'au/Dieses Zertifikat ist gültig bis

OCTOBER 2000

except if cancelled in the meantime/sauf si annulé entre-temps/sofern zwischenzeitlich nicht widerrufen.

**DATE:** 10 October 1997  
**DATE:**  
**DATUM:**

**PLACE:** Brussels  
**A:**  
**ORT:**

**SIGNATURE:**  
**SIGNATURE:**  
**UNTERSCHRIFT:**



Products	Report No/issue/date
Fitting 8°30' Titanium alloy up to 28000 Kpa	DGA Test reports: No E 450800-01 E 450800-02 final      June 1994 S.F.E. Lab B067            16.09.1996 DT 153/E                    September 1996
prEN 2656 prEN 4233 (3242) prEN 3274 prEN 3243 prEN 4018 (3250) prEN 4020 (3252) prEN 4028 (3261) prEN 3244 prEN 3245 prEN 3246 prEN 3247 prEN 4017 (3249) prEN 4019 (3251) prEN 4021 (3253) prEN 4022 (3254) prEN 4023 (3255) prEN 4024 (3256) prEN 4025 (3257) prEN 4026 (3258) prEN 4027 (3260) prEN 4030 (3263) prEN 4029 (3262) prEN 4031 (3265) prEN 3272 prEN 3273 prEN 3264 prEN 3266 prEN 3267 prEN 3268 prEN 3269 prEN 4032 (3271) prEN 4182 (3259) prEN 3561 prEN 4183 (3562) prEN 4184 (3563) prEN 4185 (3564) prEN 4186 (3565) prEN 3663 prEN 3688 prEN 3689 prEN 3690 prEN 3691 prEN 4187 (3692) prEN 4188 (3693) prEN 4189 (3694) prEN 4190 (3695) prEN 3696 prEN 4191 (3784) prEN 4192 (3785) prEN 4193 (3786) prEN 4194 (3787) prEN 3788 prEN 3789 prEN 3790	