



Shell Global Solutions

CERTIFICATE OF CONFORMITY

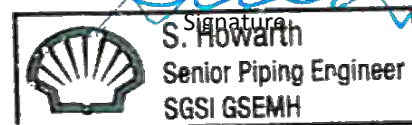
This is to certify that Supplier named below has passed Type Approval Testing for Project Specific design

Starline SpA

Manufacturing location:	Via F Baracca, 24060 San Paolo d'Argon, Italy
Based on the Technical Qualification carried out during June 2011 in accordance with testing procedure SPE 77/300 has been accepted by Shell Global Solutions International B.V. based on successful Type Acceptance Testing (TAT) result of:	
DN25, ASME Class 2500 seat supported Ball Valve with MESC 770326 755 1, item 4	
TAT Date:	From 27 th to 30 th of June 2011
The Technical Audit carried out 12 th to the 14 th of October 2010 (report GS.10.52624 of November 20210) with a satisfactory result.	
This valve will be added Shell Global Solutions Technically Accepted Manufacturers And Products (TAMAP) database as Project Specific Acceptable.	
Restrictions / Conditions Applicable:	
Shell GSI report no: SR.11.12124	Original acceptance: 30-06-2011
Shell GS contract no.: 137866	Current certificate: none
Conformity certificate no: 2011-06-30	Certificate expiry: 30-06-2016
	Issued by Shell Global Solutions International B.V. PTE-EMMI

Simon Howarth

Piping & Valve Engineer, GSNL-PTE/EMMI



The valve qualification range according following tested valves:

Item 4: DN25pressure class 2500 ball valve

Technical Classification Code:	BA-FL-ST-BD-SB-IB-XX-I17292-ST
Product Group Description	Flanged, split body, soft seated, seat supported ball valve. Design to ISO 17292 Material body: ASTM A182 Gr F316 Material trim: A182 Gr F316
Shell Fuggitive Emission Class:	B
Test Temperature Range:	-20 °to +150 °C
Size and Pressure Range:	DN15, DN20, DN25, DN40 and DN50 Pressure rating class 2500
Brand name & Model Designation:	Megastar
GA Drawing of TA-tested valve:	SH-2611100004



Shell Global Solutions

CERTIFICATE OF ACCEPTANCE

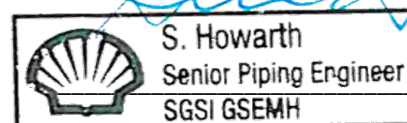
This is to certify that Supplier Technical Assessment Record (STAR) level 2 has been awarded to:

Starline SpA

Manufacturing location:	Via F Baracca, 24060 San Paolo d'Argon, Italy
Based on the Technical Qualification carried out during June 2011 in accordance with testing procedure SPE 77/300 has been accepted by Shell Global Solutions International B.V. based on successful Type Acceptance Testing (TAT) result of:	
DN50, ASME CL300 Ball Valve. TEC: BA-FL-ST-BD-SB-IB-XX-I17292-ST; MESC 770326 858, 1 item 1 DN50, ASME CL300 Ball Valve. TEC: BA-FL-ST-BD-SB-IB-XX-I17292-ST; MESC 77023X 858 1, item 2 DN50, ASME CL600 Ball Valve. TEC: BA-TR-ST-BD-SB-IB-XX-I14313-ST; MESC 773470 258, item 3	
TAT Date:	From 27 th to 30 th of June 2011
The Technical Audit carried out 12 th to the 14 th of October 2010 (report GS.10.52624 of November 20210) with a satisfactory result.	
The 2-STAR (pending) rating in the Shell Global Solutions Technically Accepted Manufacturers And Products (TAMAP) database is applicable to the MESC Sub-sub Groups, listed in Technical Specification MESC SPE 77/300B in accordance with tested valves description on page 2.	
Restrictions / Conditions Applicable:	As the temperature ranges listed in the tables below.
Shell GSI report no: SR.11.12124	Original acceptance: 30-06-2011
Shell GS contract no.: 137866	Current certificate: none
Acceptance certificate no: 2011-06-30	Certificate expiry: 30-06-2016
	Issued by Shell Global Solutions International B.V. PTE-EMMI

Simon Howarth

Piping & Valve Engineer, GSNL-PTE/EMMI



The valve qualification range according following tested valves:

Item 1: DN50 pressure class 300 ball valve

Technical Classification Code:	BA-FL-ST-BD-SB-IB-XX-I17292-ST
Product Group Description	Flanged, split body, soft seated, seat supported ball valve. Design to ISO 17292 Material body: ASTM A182 Gr F316 Material trim: A182 Gr F316
Shell Fuggitive Emission Class:	B
Test Temperature Range:	-20 °to +150 °C
Size and Pressure Range:	DN15, DN20, DN25, DN40, DN50, DN80 and DN100 Pressure rating classes 150 and 300
Brand name & Model Designation:	Splitstar
GA Drawing of TA-tested valve:	SH-2506110001

Item 2: DN50 pressure class 300 ball valve

Technical Classification Code:	BA-FL-ST-BD-SB-IB-XX-I17292-ST
Product Group Description	Flanged, split body, soft seated, seat supported ball valve. Design to ISO 17292 Material body: ASTM A182 Gr F316 Material trim: A182 Gr F316
Shell Fuggitive Emission Class:	B
Test Temperature Range:	-20 °to +150 °C
Size and Pressure Range:	DN15, DN20, DN25, DN40, DN50, DN80 and DN100 Pressure rating classes 150 and 300
Brand name & Model Designation:	Splitstar
GA Drawing of TA-tested valve:	SH-2506110002

Item 3: DN50 pressure class 600 ball valve

Technical Classification Code:	BA-TR-ST-BD-SB-IB-XX-I17292-ST
Product Group Description	Flanged, split body, soft seated, trunnion mounted ball valve. Design to ISO 14313 Material body: ASTM A182 Gr F316 Material trim: A182 Gr F316
Shell Fuggitive Emission Class:	B
Test Temperature Range:	-20 °to +150 °C
Size and Pressure Range:	DN15, DN20, DN25, DN40, DN50, DN80 and DN100 Pressure rating classes 150, 300 and 600
Brand name & Model Designation:	Ultrastar
GA Drawing of TA-tested valve:	SH-2506110003

BA-FL-ST-BD-SB-IB-XX-I17292		BALL VALVES, ISO 17292 - FLOATING BALL, SOFT SEATED, BI-DIRECTIONAL, TWO PIECE, INTEGRAL (NON-EXTENDED) BONNET ----- OR ----- BALL VALVES, ISO 17292 - FLOATING BALL, SOFT SEATED, BI-DIRECTIONAL, TWO/THREE PIECE, INTEGRAL (NON-EXTENDED) BONNET			
Mat, body	Temperature range	size range	MESC	FE class	TQ class
AISI 316	-20°C to +150 °C	DN15 to DN100	770326	B	ST
ALUMINIUM BRONZE	-20°C to +65 °C	DN40	770702	-	ST
CARBON STEEL	-20°C to +150 °C	DN15 to DN100	770025	B	ST
CARBON STEEL	-20°C to +150 °C	DN15 to DN100	770054	B	ST
DUPLEX STAINLESS STEEL	-20°C to +150 °C	DN15 to DN100	770343	B	VH
SUPER DUPLEX STAINLESS STEEL	-20°C to +150 °C	DN15 to DN100	770345	B	VH
<p>Note</p> <p>Temperature range -50°C to +150°C qualifies all listed temperature ranges. Manufacturer to confirm identical design as specified</p> <p>Fugitive emission class A(HS) qualifies fugitive emission class B</p> <p>Where applicable; raised face (RF) flanged end qualifies ring joints (RTJ), butt-weld and clamp hub ends</p> <p>Higher criticality classes qualify lower classes in the order of VH, HI, MD, LO, ST</p> <p>Full bore qualifies reduced bore or vice-versa</p>					

BA-TR-ST-BD-SB-BB-XX-I14313	BALL VALVES, API SPEC 6D ISO 14313 - TRUNNION MOUNTED BALL, SOFT SEATED, BI-DIRECTIONAL, TWO/THREE PIECE, BOLTED (NON-EXTENDED) BONNET ----- OR ----- BALL VALVES, API SPEC 6D ISO 14313 - TRUNNION MOUNTED BALL, SOFT SEATED, BI-DIRECTIONAL, TWO/THREE PIECE, BOLTED EXTENSION BONNET			
Mat, body	Temperature range	size range	MESC	FE class
AISI 316	-20°C to +120 °C	DN50 to DN100	770363	B
AISI 316	-20°C to +150 °C	DN50 to DN100	770374	B
CARBON STEEL	-20°C to +120 °C	DN50 to DN100	770067	B
CARBON STEEL	-20°C to +120 °C	DN50 to DN100	770091	B
CARBON STEEL	-20°C to +120 °C	DN50 to DN100	770241	B
CARBON STEEL	-20°C to +120 °C	D50 to DN100	770253	B
CARBON STEEL, LOW TEMP	-20°C to +150 °C	DN50 to DN100	770045	B
CARBON STEEL, LOW TEMP	-20°C to +150 °C	DN50 to DN100	770212	B
CARBON STEEL, LOW TEMP	-20°C to +150 °C	DN50 to DN100	770238	B
CARBON STEEL, LOW TEMP	-50°C to +120 °C	D50 to DN100	770083	B
DUPLEX STAINLESS STEEL	-20°C to +120 °C	DN50 to DN100	770389	B
SUPER DUPLEX STAINLESS STEEL	-20°C to +120 °C	DN50 to DN100	770366	B
<p>Notes:</p> <p>Temperature range -50°C to +150°C qualifies all listed temperature ranges. Manufacturer to confirm identical design as specified</p> <p>Fugitive emission class A(HS) qualifies fugitive emission class B</p> <p>Where applicable; raised face (RF) flanged end qualifies ring joints (RTJ), butt-weld and clamp hub ends</p> <p>Higher criticality classes qualify lower classes in the order of VH, HI, MD, LO, ST</p> <p>Full bore qualifies reduced bore or vice-versa</p>				



Shell Global Solutions


CERTIFICATE OF ACCEPTANCE

This is to certify that Supplier Technical Assessment Record (STAR) for Project Services has been awarded to:

STARLINE S.p.A.

Manufacturing location:	Via dei Livelli di Sopra 11, 24060, Costa di Mezzate (Bergamo), Italy
Based on the Technical Qualification carried out January 2008 in accordance with testing procedure SPE 77/300 dated June 2007 has been accepted by Shell Global Solutions International B.V. based on successful Type Acceptance Testing (TAT) result of:	
DN25 Pressure class 150; soft seated, floating Ball valve with no MESC available (Item-1) DN25 Pressure class 300; soft seated, trunnion Ball valve with no MESC available (Item-2) DN25xDN20 Pressure class 150(800); soft seated, floating Ball valve with no MESC available (Item-3) DN25 Pressure class 1500; soft seated, trunnion Ball valve with no MESC available (Item-4) DN80 Pressure class 150; soft seated, trunnion Ball valve with no MESC available (Item-5) DN50xDN40 Pressure class 1500; soft seated, trunnion Ball valve with no MESC available (Item-6) DN25xDN20 Pressure class 300; metal seated, floating Ball valve with no MESC available (Item-7) DN25 Pressure class 2500; metal seated, trunnion Ball valve with no MESC available (Item-8)	
TAT Dates:	14 th to 28 th of January 2008 (week 0-3 & 04)
Technical Audit was carried out from 12 th to 14 th of October 2010 with a satisfactory result and was covered in report GS.10.52624 from November 2010.	
The STAR Project Service rating is applicable to the MESC Sub-sub Groups, listed in Technical Specification MESC SPE 77/300B in accordance with tested valve description on page 2, 3, 4	
Restrictions / Conditions Applicable:	Valves were ordered against project specification but were applicable tested valves will qualify Shell MESC valves.
Shell GSI report no: SR.13.11389	Original acceptance: 28/01/2008
Shell GS contract no.: 119747	Current certificate: 28/01/2013
Acceptance certificate no: 2008/01-099	Certificate expiry: 28/01/2018
	Issued by Shell Global Solutions International B.V. PTE-EMMI

Name:
Rob Hengst,
GSNL-PTE/EMMI

Signature

 R. Hengst
 Mechanical Engineer
 GSNL - GSEMI

The valve qualification range according following tested valve:

Item-1: DN25 Pressure class 150; soft seated, floating Ball valve with no MESC available

Technical Classification Code:	Not available
Product Group Description	Flanged, split body, soft seated, floating Ball valve, full bore with 2-piece body Design to ISO 17292 Material body: ASTM A105N Material trim: ASTM A182 Grade F316, Seat material: PTFE & O-ring material: NBR
Shell Fugitive Emission Class:	B
Test Temperature Range:	From -20 °C to +150 °C
Size and Pressure Range:	Bore ID: DN15, DN20, DN25, DN40 and DN50 Pressure class rating: 150 only
Brand name & Model Designation:	Starline & 1"-173-SGS-150
GA Drawing of TA-tested valve:	CA-0207070000 sheet-8 with revision-1

Item-2: DN25 Pressure class 300; soft seated, trunnion Ball valve with no MESC available

Technical Classification Code:	Not available
Product Group Description	Flanged, split body, soft seated, trunnion mounted Ball valve, full bore with 3-piece body Design to ISO 14313/API6D Material body: ASTM A276 Type 316 Material trim: ASTM A276 Type 316 Seat material: RPTFE & O-ring material: VITON-B
Shell Fugitive Emission Class:	B
Test Temperature Range:	From -20 °C to +150 °C
Size and Pressure Range:	Bore ID: DN15, DN20, DN25, DN40 and DN50 Pressure class rating: class 150 and 300
Brand name & Model Designation:	Starline & 1"-106-SGV-300
GA Drawing of TA-tested valve:	SH-1001080003 with revision-0

Item-3: DN25xDN20 Pressure class 150(800); soft seated, floating Ball valve with no MESC available

Technical Classification Code:	Not available
Product Group Description	Threaded, split body, soft seated, floating Ball valve, reduce bore with 3-piece body Design to ISO 17292 Material body: ASTM A350 Grade LF2 Material trim: ASTM A182 Grade F316 Seat material: RPTFE & O-Ring material: VITON-B
Shell Fugitive Emission Class:	B
Test Temperature Range:	From -20 °C to +150 °C
Size and Pressure Range:	Bore ID: DN40, DN50, DN80 and DN100 Pressure rating : 150, 300, 600 and 800
Brand name & Model Designation:	Starline & 1"-230-SGV-150
GA Drawing of TA-tested valve:	CA-0207070001 sheet 9 with revision-1


R. Hengst
Mechanical Engineer
CSL 123456

Item-4: DN25 Pressure class 1500; soft seated, trunnion Ball valve with no MESC available

Technical Classification Code:	Not available
Product Group Description	Flanged, split body, soft seated, trunnion mounted Ball valve, full bore with 3-piece body Design to ISO 14313/API6D Material body: ASTM A182 Grade F316 Material trim: ASTM A182 Grade F316 Seat material: DEVLON-V & O-Ring material: VITON-B
Shell Fugitive Emission Class:	B
Test Temperature Range:	From -20 °C to +150 °C
Size and Pressure Range:	Bore ID: DN15, DN25, DN40 and DN50 Pressure rating: 900 and 1500
Brand name & Model Designation:	Starline & 1"-106-NGV-1500
GA Drawing of TA-tested valve:	SH-1001080005 with revision-0

Item-5: DN80 Pressure class 150; soft seated, trunnion Ball valve with no MESC available

Technical Classification Code:	Not available
Product <u>Group</u> Description	Flanged, split body, soft seated, trunnion mounted Ball valve, full bore with 3-piece body Design to ISO 14313/API6D Material body: ASTM A182 Grade F316 Material trim: ASTM A182 Grade F316 Seat material: RPTFE & O-Ring material: VITON-B
Shell Fugitive Emission Class:	B
Test Temperature Range:	From -20 °C to +150 °C
Size and Pressure Range:	Bore ID: DN50, DN80, DN100 and DN150 Pressure rating: 150 only
Brand name & Model Designation:	Starline & 3"-106-SGV-150
GA Drawing of TA-tested valve:	SH-1001080004 with revision-0

Item-6: DN50xDN40 Pressure class 1500; soft seated, trunnion Ball valve with no MESC available

Technical Classification Code:	Not available
Product Group Description	Flanged, split body, soft seated, trunnion mounted Ball valve, reduce bore with 3-piece body Design to ISO 14313/API6D Material body: ASTM A350 Grade LF2 Material trim: ASTM A182 Grade F316 Seat material: DEVLON-V & O-Ring material: VITON-B
Shell Fugitive Emission Class:	B
Test Temperature Range:	From -20 °C to +150 °C
Size and Pressure Range:	Bore ID: DN15, DN25, DN40 and DN50, DN80 and DN100 Pressure rating: 900 and 1500
Brand name & Model Designation:	Starline & 2"-200-NGX-1500
GA Drawing of TA-tested valve:	SH-1001080006 with revision-0



R. Hengst
Mechanical Engineer
CSN 10655EM1

Item-7: DN25xDN20 Pressure class 300; metal seated, floating Ball valve with no MESC available

Technical Classification Code:	Not available
Product Group Description	Flanged, split body, metal seated, floating Ball valve, reduce bore with 2-piece body, extended bonnet and cavity relief Design to ISO 17292 Material body: ASTM A564 UNS N06625 Material trim: ASTM A564 UNS N06625 Seat material: INCONEL-625 + TC & Lip-seal material: PTFE + SS
Shell Fugitive Emission Class:	B
Test Temperature Range:	From -101 °C to +150 °C
Size and Pressure Range:	Bore ID: DN15, DN20, DN25, DN40 and DN50 Pressure class rating: class 150 and 300
Brand name & Model Designation:	Starline & 1"-240-MGG-300
GA Drawing of TA-tested valve:	SH-1001080007 with revision-0

Item-8: DN25 Pressure class 2500; metal seated, trunnion Ball valve with no MESC available

Technical Classification Code:	Not available
Product Group Description	Flanged, split body, metal seated, trunnion mounted Ball valve, full bore with 3-piece body Design to ISO 14313/API6D Material body: ASTM A564 UNS N06625 Material trim: ASTM A564 UNS N06625 Seat material: INCONEL-625 + TC & Lip-seal material: PTFE + SS
Shell Fugitive Emission Class:	B
Test Temperature Range:	From -101 °C to +150 °C
Size and Pressure Range:	Bore ID: DN15, DN20, DN25, DN40 and DN50 Pressure class rating: class 2500 only
Brand name & Model Designation:	Starline & 1"-100-MGL-2500
GA Drawing of TA-tested valve:	ST-0103070001 with revision-0



R. Hengst
Mechanical Engineer
GSNO, GSMM



Shell Global Solutions

CERTIFICATE OF ACCEPTANCE

This is to certify that Supplier Technical Assessment Record (STAR) for Project Service has been awarded to:

Starline SpA

Manufacturing location:	Via Dei Livelli Di Sopra 11. Costa di Mezzate, (BG) Italy.
Based on the Technical Qualification carried out in April 2012 in accordance with testing procedure SPE 77/300 dated September 2010 has been accepted by Shell Global solutions International B.V. based on successfully Type Acceptance Testing (TAT) result of:	
DN50 FB class 1500; trunnion mounted Ball valve with MESC - 77.02.4X.708.1 (Item-1) DN50 FB class 2500; trunnion mounted Ball valve with MESC - 77.02.4X.758.1 (Item-2) DN100 FB class 1500; trunnion mounted Ball valve with MESC - 77.02.4X.712.1 (Item-3) DN100 FB class 2500; trunnion mounted Ball valve with MESC - 77.02.4X.758.1 (Item-4)	
TAT Date:	16 th to 20 th April 2012
The Technical Audit was carried out from 12 th to 14 th October 2010 (Report GS.10.52624 of November 2010) with satisfactory results.	
The STAR Project Service Pending rating is applicable to the MESC Sub-sub Groups, as listed in Technical Specification MESC SPE 77/300B in accordance with tested valves description on page 2.	
Restrictions / Conditions Applicable:	SGSI do not support the use of elastomers in class 2500 valves. Therefore this certificate applies only to a Project Qualification as listed on page 2 and 3.
Shell GSI report no.: SR.12.11189	Original acceptance: 2012-04-20
Shell GS contract no.: 138756	Current certificate: 2012-04-20
Acceptance certificate no: 2013-02-004	Certificate expiry: 2017-04-20
	Issued by Shell Global Solutions International B.V. PTE-EMMI

Name:

Bob Merrifield

Signature




Bob Merrifield
GGSI - GSEMH
Valve Engineer

14th February 2013

The valve qualification range according following tested valves:

Item 1: DN50 FB pressure class 1500; trunnion mounted Ball valve with MESC - 77.02.4X.708.1

Technical Classification Code:	BA-TR-SE-BD-SB-BB-XX-I14313-ST
Product Group Description	Flanged, bolted bonnet, soft seated, TM Ball valve Design to ISO 14313, full bore Body material: ASTM A350 Grade LF2 Class-1 Ball material: SS316/316L dual certified Seat material: SS316/316L + PEEK Seal material: Graphite, HNBR-ED
Shell Fugitive Emission Class:	B
Test Temperature Range:	0 to150 °C
Size and Pressure Range:	DN 15 to 100 full and reduced bore, class 900 and 1500.
Brand name:	Starline, model: 105-PGE-G
GA Drawing of TA-tested valve:	ST-0304120103 with revision 0 from 03-04-2012

Item 2: DN50 FB pressure class 2500; trunnion mounted Ball valve with MESC - 77.02.4X.758.1

Technical Classification Code:	BA-TR-SE-BD-SB-BB-XX-I14313-ST
Product Group Description	Flanged, bolted bonnet, soft seated, TM Ball valve Design to ISO 14313, full bore Body material: ASTM A350 Grade LF2 Class-1 Ball material: SS316/316L dual certified Seat material: SS316/316L + PEEK Seal material: Graphite, Viton FR 58/90
Shell Fugitive Emission Class:	B
Test Temperature Range:	0 to120 °C
Size and Pressure Range:	DN 15 to 100 full and reduced bore, class 900 and 1500.
Brand name:	Starline, model: 105-PGE-G
GA Drawing of TA-tested valve:	ST-0304120102 with revision 0 from 03-04-2012

Item 3: DN100 FB pressure class 1500; trunnion mounted Ball valve with MESC - 77.02.4X.712.1

Technical Classification Code:	BA-TR-SE-BD-SB-BB-XX-I14313-ST
Product Group Description	Flanged, bolted bonnet, soft seated, TM Ball valve Design to ISO 14313, full bore Body material: ASTM A350 Grade LF2 Class-1 Ball material: SS316/316L dual certified Seat material: SS316/316L + PEEK Seal material: Graphite, HNBR-ED
Shell Fugitive Emission Class:	B
Test Temperature Range:	0 to150 °C
Size and Pressure Range:	DN 80 to 200 full and reduced bore, class 900 and 1500.
Brand name:	Starline, model: 105-PGE-G
GA Drawing of TA-tested valve:	ST-0304120101 with revision 0 from 03-04-2012

Item 4: DN100 FB pressure class 2500; trunnion mounted Ball valve with MESC - 77.02.4X.758.1

Technical Classification Code:	BA-TR-SE-BD-SB-BB-XX-I14313-ST
Product Group Description	Flanged, bolted bonnet, soft seated, TM Ball valve Design to ISO 14313, full bore Body material: ASTM A350 Grade LF2 Class-1 Ball material: SS316/316L dual certified Seat material: SS316/316L + PEEK Seal material: Graphite, Viton FR 58/90
Shell Fugitive Emission Class:	B
Test Temperature Range:	0 to 120 °C
Size and Pressure Range:	DN 80 to 200 full and reduced bore, class 900 and 1500.
Brand name:	Starline, model: 105-PGE-G
GA Drawing of TA-tested valve:	ST-0304120103 with revision 0 from 03-04-2012

The following manufacturer brand name / model types will be listed in TAMAP