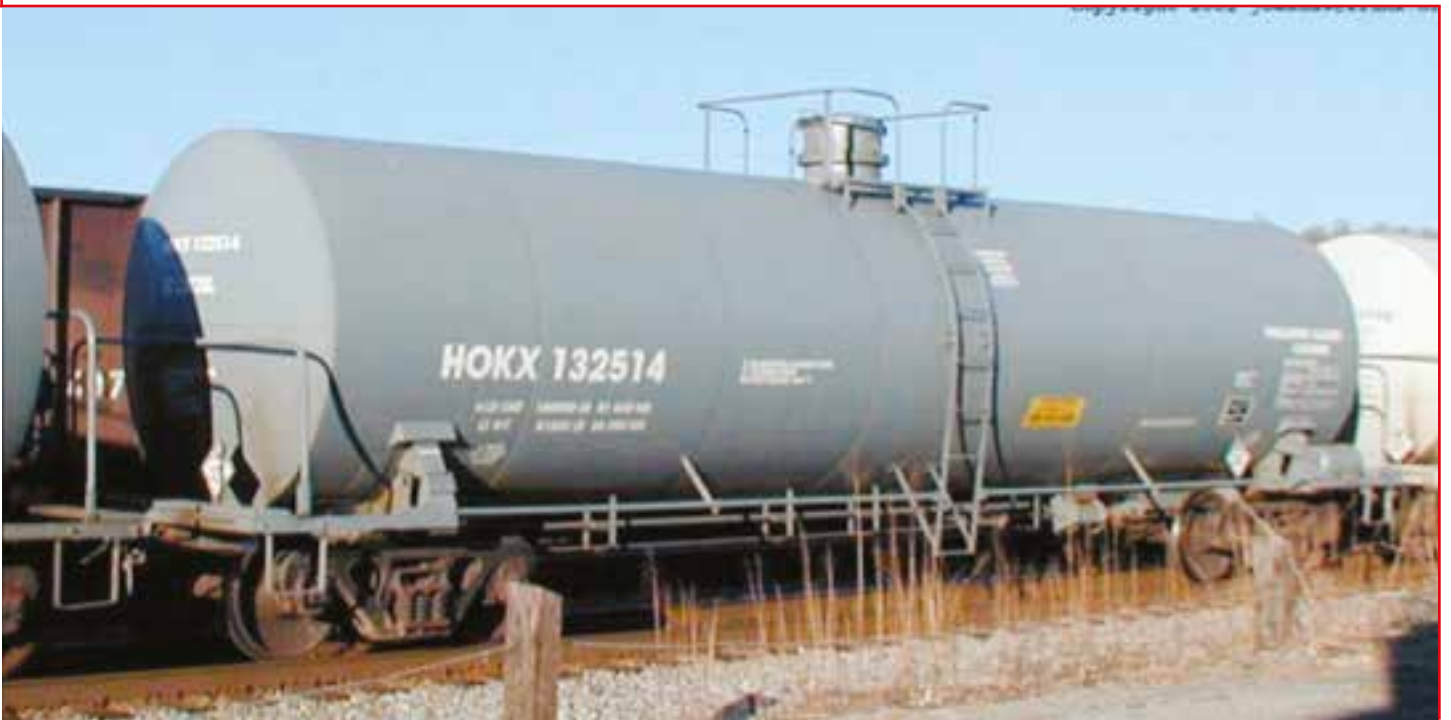


TRAILER & RAIL TRANSPORTATION VALVES



Approved

1 – Valve solution presentation

2 – Leaflet Model 922 – DEFNB-0021

3 – AAR approvals for 921, 922, 925 and 926

4 – Drawings: 110542 - 110659 – 110519 – 110547 – 110626

5 – Reference list

▶ TRAILER & RAIL CAR - TRANSPORTATION VALVES

descote has been designing and manufacturing valves for hazardous applications in the chemical industry for 40 years.

Amongst various applications, descote has developed special designs to meet the needs of the North American (NA) transportation rail and road tank cars, following the specifications of the Chlorine Institute (CI) and of the Association of American Railroad (AAR).

Equipment used on rail tank cars in NA must be:

- ▶ Listed by the CI
- ▶ Officially approved by the AAR.

The only approved valve, up to 2002, was the «Chlorine Institute Standard Valve» acc. to drawing 104 (CI Pamphlet 40), together with the liquid and gas «Chlorine Institute Standard Excess Flow Valves» acc. to drawings 101 & 106.

As mentioned in Pamphlet 166, 2002 edition, paragraph 1.3, the CI opened the door to different designs to follow significant improvements in valve technologies.

The following improvements were specified:

- ▶ 1- Use of a **metallic bellows** to replace the standard single packing
- ▶ 2- Use of an **internal ball spring check** valve to replace the standard excess flow valve
- ▶ 3- Use of **remote actuation devices**, either external to the valve or integral to the valve
- ▶ 4- **Use of corrosion resistance materials** such as Stellite and Hastelloy®C276. Final choice remains end-user selection.

descote widely participated in these evolutions and can now offer the industry a complete range of equipment, covering all potential requirements.

All descote models & types are approved by the AAR.

Typical applications range from liquid chlorine, to Anhydrous HCL, Anhydrous HF, Liquid ammonia etc. The main improvements of the new designs are the following:

- ▶ 1- Remote control: no human presence on the tank car when opening / closing the valves
- ▶ 2- Remote control: automatic closure of the valve in case of rail car / truck displacement during loading/unloading
- ▶ 3- Remote control: ability to close the valve at any time during loading / unloading, from a remote location, in case of leak
- ▶ 4- Internal check valve: to guarantee the continuity of the containment in case of truck / rail car accident impacting the main valve during transportation
- ▶ 5- Bellows sealed design: to guarantee 0 leak along the stem and no corrosion on the driving device
- ▶ 6- Easy replacement of the main valve for maintenance without degasing the tank
- ▶ 7- Low and easy maintenance

▶ 3 TYPES OF TANK CAR VALVES ARE AVAILABLE



▶ Model 921 manual valve

This valve is the **first generation of chlorine tank car valve**, used as a replacement of the standard drawing 104, complying with Chlorine Institute Pamphlet 40 and 166. It is associated with the standard CI excess flow valve. Model 921 is equipped with Hastelloy®C276 bellows to guarantee zero leak along the stem.

It has been approved by the American AAR under n° E-182100 according to drawing n°110 542.

These valves have been largely installed and used on North and Latine America sites



▶ Model 922/926 manual valve

This model incorporates a **dual closing device**:

- ▶ a main angle bellows sealed globe valve (Model 922)
- ▶ a spring loaded internal ball safety check valve (Model 926)

It is intended to be used with a remote actuator located at the loading/unloading station.

Model 922/926 complies with Chlorine Institute Pamphlet 168 – Guidelines for dual valve systems for bulk chlorine transport.

This valve is approved by American AAR under n° E-182101 according to drawing n°110 659.

It is also conforming to Transport Canada Standard – TP14877

More than 1 000 valves have been delivered in North America.

For more information on Model 922/926, please refer to our enclosed leaflet.



▶ Model 925/926 actuated valve

This model incorporates a **dual closing device**:

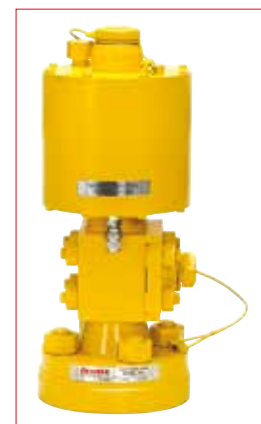
- ▶ a main actuated angle bellows sealed globe valve (Model 925)
- ▶ a spring loaded safety check valve

Each valve is fitted with its own remote actuator.

Model 925/926 complies with Chlorine Institute Pamphlet 168 – Guidelines for dual valve systems for bulk chlorine transport. This valve is approved by American AAR under n° E-182101 according to:

- ▶ drawing n°110 519 for Chlorine transportation
- ▶ drawing n° 110 547 for AHF transportation
- ▶ drawing n° 110 626 for AHCl transportation

It is also conforming to Transport Canada Standard – TP14877.



Model 925/926 is presently the most advanced design.

It guarantees the highest level of safety during loading/unloading, as well as during transportation.



A new chlorine top tank car valve for improved rail transportation safety

descote is known worldwide by the chemical industry as THE VALVE SPECIALIST for HAZARDOUS MEDIA. descote valves are recognized for their long-term reliability and safe operations.



descote tank car valves have been in service for more than 20 years on chlorine, Anhydrous HF and Anhydrous HCl in North & Middle America.

Since the beginning, as a major improvement, these valves were specified and designed with bellows seal to eliminate stem packing leakage. It also contributed to life operation extension.

descote top tank car valves are AAR approved since 1991 and contribute to the safety and efficiency of hazardous and toxic chemical transportation. They also comply to CI Pamphlet 168 recommendations.

Today, descote offers a positive answer to rail transport concern for the potential risks of toxic atmospheric release in case of derailment.

The new descote chlorine manual valve has been designed with a dual closing device : a combination of a main manual angle valve – Model 922 – and a spring-loaded internal ball check valve – Model 926.



- Rated -50°F to +250°F at 500 psiG
- 0 ppm stem emission with extended bellows life
- “Bubble tight” closure flow path
- High unloading/loading flow capacity
- Internal ball check valve installed under cover plate. This device is the proven best available technology on Anhydrous HF and Anhydrous HCl P.O.V. since 1992.
- Handwheel designed for direct POWEL remote operation device fitting
- Heavy duty design for durability
- AAR approval
- Chlorine Institute Pamphlet 168 compliance
- Chlorine emergency capping kit compatibility

www.descote.com

Top tank car valve – Model 922

Technical data

Features

Ease of operation

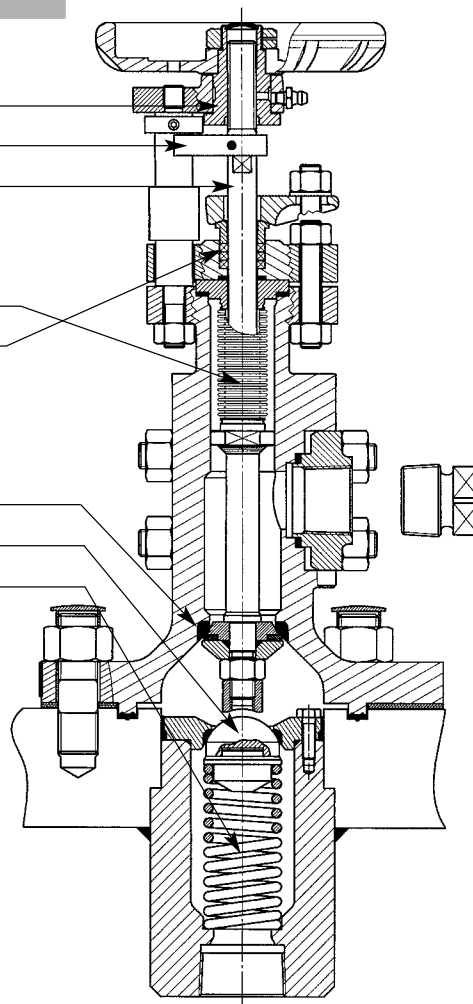
- Stem thread and yoke bushing fully enclosed and protected from harsh environment
- Position indicator as anti-rotation stem device to avoid bellows torsion
- Non rotating, one piece, smooth finished stem

Zero atmosphere emission

- Stem sealed with multi-ply bellows
- Secondary stem sealing by emergency stuffing box
- Easy removable stem-bellows for maintenance

Zero seat leakage

- Dual primary seal : metal/metal knife effect and soft PTFE disc seat
- Secondary seal : PTFE reinforced graphite ball and Monel 400 seating
- High strength inconel 600 spring



Dimensions

	mm	inch
H open	330	13"
V	140	5" 1/2
Flow coefficient (CV) USgpm		16

Materials selection

	ASTM Standards
Body & bonnet	A350 LF2
Disc & disc seat	Hastelloy C276/PTFE
Bellows	Hastelloy C276
Stem	Hastelloy C276
Body seats	Valve = stellite or C276 / Check = Monel 400
Gasket & packing	PTFE
Spring check	Inconel 600

Inspection & quality control

descote production specifications have very strict non destructive testing & examination requirements. They are based upon national & international standards : API 600, ASME B31.3 and ASME V.

+ industrial standards such as EuroChlor, Chlorine Institute...

+ customers specific requirements

+ our own industrial experience

These requirements are systematically used and include the following examinations :

X-ray, U.S., magnetic particle, dye-pen on welds and machined parts, wall thickness, dimensions, surface finish and leak testing.

descote provides this high level of inspection and quality control to complement customer specifications.

Valve preparation

- all components are degreased, cleaned and prepared for chlorine service
- Valves are oven dried for 3 hours and sealed before shipment

Pressure tests

All valves are pressure tested according to international standards.

In addition, we systematically perform

- 100% HP gas seat test with acceptance criteria of 0 bubble during 2 minutes only. This testing ensures zero seat leakage on every valve delivered.

Certificates and traceability

descote applies the ISO 9001 standard to complete production process. This procedure systematically includes a unique serial number and C.M.T.R's for traceability of materials, tests, examinations and controls.

- The valve serial number provides full traceability for the lifetime of the valve
- Body material and pressure/temperature limitation markings strictly follow AAR specification.



descote s.a.s

9 avenue Jean Jaurès
69320 Feyzin - France

Phone: +33 4 72 89 25 00

Fax: +33 4 72 89 25 25

E-mail : info@descote.com

Web : www.descote.com

**AAR Manual of Standards and Recommended Practices
Specifications for Tank Cars**

CHAPTER 1

M-1002

**APPLICATION FOR RENEWAL OF APPROVAL FOR PRESSURE RELIEF
DEVICES, VALVES, CLOSURES, AND FITTINGS**

1. AAR APPROVAL No. E182100
 2. Date of Application 12/18/2017
 3. Previous AAR Approval E-079009

4. Applicant: descote
 5. Address: 9 avenue Jean Jaurès 69320 FEYZIN FRANCE
 6. Drawing No. 110542 7. Latest rev. D 8. Date of latest rev. 06/20/07
 9. Description of device: 1" Manual Angle Globe Valve 10. Device ID No. Model 921

CERTIFICATION: The subject device is unchanged from the previous approval and conforms with the latest revision of AAR Specifications for Tank Cars, Appendix A. The device conforms with drawing listed above.

11. By: _____ Title: _____

If device is changed since latest approval, fill in the following blanks

12. Reference Previous Drawing	New Drawing	If on Service Trial
No. <u>110542</u> Rev. <u>D</u> Date <u>06/20/07</u>	No. <u>110542</u> Rev. <u>F</u> Date <u>08/01/17</u>	S.T. No. _____
No. _____ Rev. _____ Date _____	No. _____ Rev. _____ Date _____	S.T. No. _____
No. _____ Rev. _____ Date _____	No. _____ Rev. _____ Date _____	S.T. No. _____

13. New drawing supersedes previous one or does not obsolete it

CHANGES

REASONS FOR CHANGES

- | | |
|---|---|
| 14. a. <u>Option with Hastelloy C276 seat</u>
b. <u>1" NPT Plug modified</u>
c. <u>Temperature range extended to -50F</u>
d. _____
(if needed use supplemental sheet) | a. <u>Offer several service compatible materials</u>
b. <u>Previous model not available any more</u>
c. <u>Reflect full material capacity</u>
d. _____ |
|---|---|

15. Normal operational effect of changes of device: Valve suitable for fluid temperature down to -50F

16. Drawing submitted with this application: 110542 Rev F

CERTIFICATION: The above data is correct and conforms with AAR Specifications for Tank Cars, Appendix A. The device conforms with drawing listed above.

17. By: C. VILHELM  Title: Technical manager

APPROVAL AAR Tank Car Committee:

Date Approved: 5/23/2018 
 (Signature) on behalf of Committee

Form AAR 4-7 11/2014

Fig. 1.5 Form AAR 4-7 Application for Renewal of Approval for Pressure Relief Devices, Valves, Closures, and Fittings

**AAR Manual of Standards and Recommended Practices
Specifications for Tank Cars**

**APPLICATION FOR RENEWAL OF APPROVAL FOR PRESSURE RELIEF
DEVICES, VALVES, CLOSURES, AND FITTINGS**

1. AAR APPROVAL No. E18 210 1
 2. Date of Application 12/18/2017
 3. Previous AAR Approval E-079010
4. Applicant: descote
 5. Address: 9 avenue Jean Jaurès 69320 FEYZIN FRANCE
 6. Drawing No. * _____ T. Latest rev. * _____ R. Date of latest rev. 06/20/07
 9. Description of device: Pneumatically operated Angle Globe Valve 10. Device ID No. Model 925/926
 * : 110519 Rev D, 110547 Rev E, 110626 Rev E, 110659 Rev B

CERTIFICATION: The subject device is unchanged from the previous approval, and conforms with the latest revision of AAR Specifications for Tank Cars, Appendix A. The device conforms with drawing listed above.

11. By: _____ Title: _____

(If device is changed since latest approval, fill in the following blanks)

12. Reference Previous Drawing	New Drawing	If on Service Trial
No. <u>110519</u> Rev. <u>D</u> Date <u>06/20/07</u>	No. <u>110519</u> Rev. <u>E</u> Date <u>08/01/17</u>	S.T. No. _____
No. <u>110547</u> Rev. <u>E</u> Date <u>06/20/07</u>	No. <u>110547</u> Rev. <u>L</u> Date <u>08/01/17</u>	S.T. No. _____
No. <u>110626</u> Rev. <u>E</u> Date <u>06/20/07</u>	No. <u>110626</u> Rev. <u>M</u> Date <u>08/01/17</u>	S.T. No. _____
No. <u>110659</u> Rev. <u>B</u> Date <u>06/20/07</u>	No. <u>110659</u> Rev. <u>J</u> Date <u>08/01/17</u>	S.T. No. _____

13. New drawing supersedes previous one or does not obsolete it

CHANGES

REASONS FOR CHANGES

14. a. Option with Hastelloy C276 seat
 b. Disc nut locking with locking washer
 c. Tightening torques update
- a. Offer several service compatible materials
 b. Increase of reliability
 c. Increase of reliability & harmonization

Above changes are common to all drawings. For specific changes see supplemental sheet attached -

15. Normal operational effect of changes of device: Valve suitable for fluid temperature down to -50F, except 110626 remaining suitable for -150F

16. Drawing submitted with this application: 110519 Rev E, 110547 Rev L, 110626 Rev M, 110659 Rev J

CERTIFICATION: The above data is correct and conforms with AAR Specifications for Tank Cars, Appendix A. The device conforms with drawing listed above.

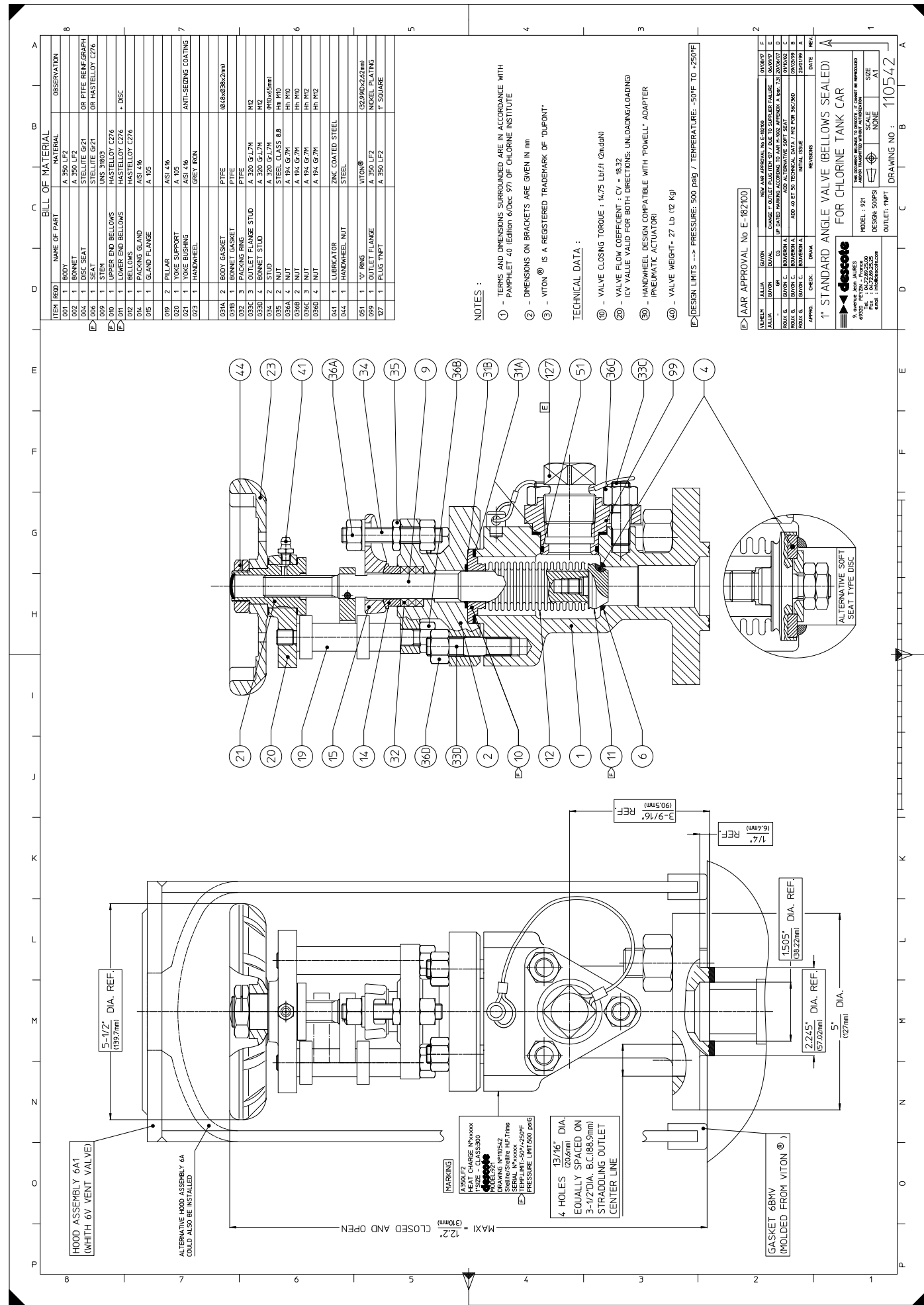
17. By: C. VILHELM _____ Title: Technical manager

APPROVAL AAR Tank Car Committee:

Date Approved: 5/23/2018 _____

 (Signature) on behalf of Committee

Fig. 1.5 Form AAR 4-7 Application for Renewal of Approval for Pressure Relief Devices, Valves, Closures, and Fittings



ITEM	QTY	NAME OF PART	MATERIAL	OBSERVATION
001	1	BONNET	A 350 LF2	
002	1	DISC SEAT	STELLITE G-21	OR PTFE RENIF-GRAPH
004	1	SEAT	UNS 31603	OR HASTELLOY C-276
009	1	STEM	HASTELLOY C-276	
010	1	UPPER END BELLOW	HASTELLOY C-276	
011	1	LOWER END BELLOW	HASTELLOY C-276	
012	1	BELLOW	HASTELLOY C-276	+ DISC
014	1	PACKING GLAND	ANSI 416	
015	1	GLAND FLANGE	A 105	
019	2	PILLAR	ANSI 416	
020	1	YOKER SUPPORT	A 105	
021	1	YOKER BUSHING	ANSI Z16	
022	1	HANDWHEEL	GREY IRON	ANTI-SEIZING COATING
031A	2	BODY GASKET	PTFE	(@.4x.9x39.2mm)
031B	1	BONNET GASKET	PTFE	
032	3	PACKING RING	PTFE	
033C	3	OUTLET FLANGE STUD	A 350 G4L7H	HR M2
033D	2	BONNET STUD	A 350 G4L7H	HR M2
034	2	STUD	A 350 G4L7H	HR M2
035	2	STUD	STEEL CLASS 5.8	HR M10
036A	4	NUT	A 194 G-7M	HR M10
036B	2	NUT	A 194 G-7M	HR M10
036C	3	NUT	A 194 G-7M	HR M12
036D	4	NUT	A 194 G-7M	HR M12
041	1	LUBRICATOR	ZINC COATED STEEL	
042	1	HANDWHEEL NUT	STEEL	
051	1	"O" RING	VITON®	(32.99x2.6mm)
059	1	OUTLET FLANGE	A 350 LF2	NICKEL PLATING
127	1	PLUG TYPET	A 350 LF2	1" SQUARE

NOTES:

- TERMS AND DIMENSIONS SURROUNDED ARE IN ACCORDANCE WITH PAMPHLET 40 (EIGION 6/Dec. 97) OF CHLORINE INSTITUTE
- DIMENSIONS ON BRACKETS ARE GIVEN IN MM
- VITON® IS A REGISTERED TRADEMARK OF DUPONT

TECHNICAL DATA:

- VALVE CLOSING TORQUE : 14.75 Lbf-ft (2m.dNm)
- VALVE FLOW COEFFICIENT (CV) : 18.32
- CV VALUE VALID FOR BOTH DIRECTIONS: UNLOADING/LOADING
- HANDWHEEL DESIGN COMPATIBLE WITH 'POMELL' ADAPTER (PNEUMATIC ACTUATOR)
- VALVE WEIGHT : 27 Lb (12 Kg)

DESIGN LIMITS →→→ PRESSURE: 500 psig / TEMPERATURE: -50°F TO +250°F

IAAR APPROVAL No E-182100

DATE	BY	DESCRIPTION
01/08/17	GA	NEW IAAAR APPROVAL No E-182100
06/07/17	GA	CHANGE 1: OUTLET FLANGE / 127 / DISC TO SUPPLIER FAILURE
06/07/17	GA	CHANGE 2: DATED DIMENSIONS / 127 / DISC TO SUPPLIER FAILURE
06/07/17	GA	CHANGE 3: DATED DIMENSIONS / 127 / DISC TO SUPPLIER FAILURE
06/07/17	GA	ADD ALTERNATIVE SEAT TYPE DISC
06/07/17	GA	ADD .40 ET .50 TECHNICAL DATA / HR FOR 36C/260
09/10/19	GA	INITIAL ISSUE
20/10/19	GA	REVISED
20/10/19	GA	REVISED

1" STANDARD ANGLE VALVE (BELLOWS SEALED) FOR CHLORINE TANK CAR

descoTE
9. Avenue Jean JAURES
41000 CHATELAIN
Tel : 04.77.62.25.00
Fax : 04.77.62.25.01
Email : info@desco.com

MODEL : 1921
DESIGN : 500PSI
SCALE : NONE
SIZE : AT

OUTLET TYPET : 110542

MANUAL ANGLE VALVE MODEL 922

INTERNAL CHECK VALVE MODEL 926

MAXI 50% CLOSED & OPEN
(265mm)

PAMPHLET 168

162

44

21

23

20

46

19

10

12

1a

36

11

9

4.3b

37

62

57a

34

42

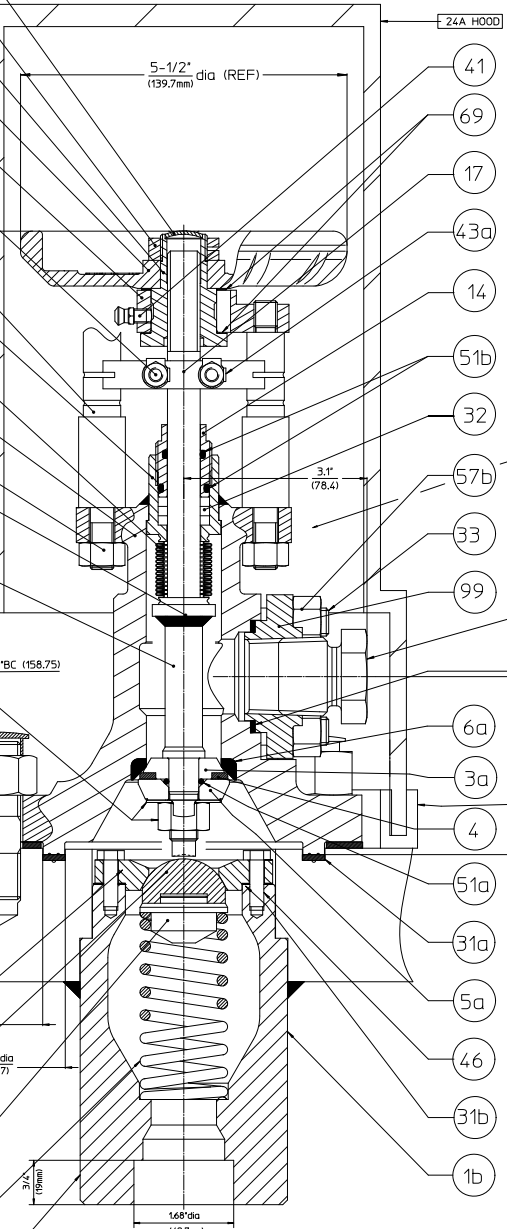
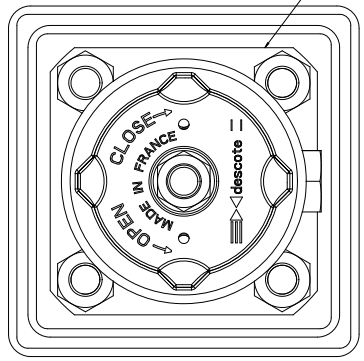
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55

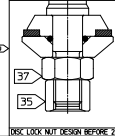
3b

5b

116



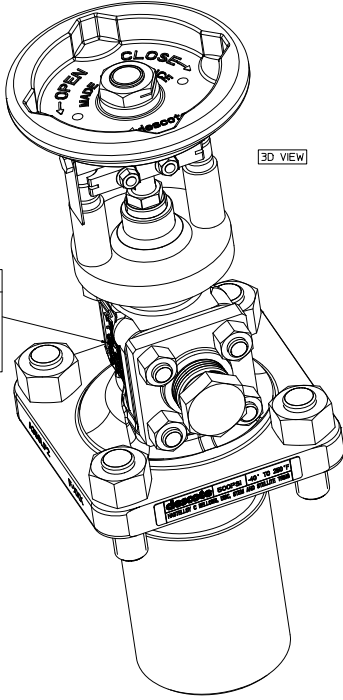
CHECK VALVE MARKING
A350LF2
HEAT CHARGE N°xxxx
Serial N°xxxx xxx
descote



BILL OF MATERIAL

ITEM	Qty	NAME of PARTS	MATERIAL	COMMENTS
1a	1	BODY	A350 LF2 + ELECTROLESS NIKEL PLATED	
3a	1	DISC	HASTELLOY C276	
4	1	DISC SEAT	P.T.F.E	
5a	1	DISC SUPPORT	HASTELLOY C276	
6a	1	BODY SEAT	STELLITE G-21	OR HASTELLOY C276
9	1	STEM	HASTELLOY C276	
10	1	UPPER END BELLOW	HASTELLOY C276	
11	1	LOWER END BELLOW	HASTELLOY C276	
12	1	BELLOW	HASTELLOY C276	
14	1	PACKING GLAND	MONEL 400	
17	1	STEM GUIDE	A60-2	
19	2	PILLAR	ALSI 436	
20	1	YOKE SUPPORT	A195	
21	1	YOKE BUSHING	ALSI 436	ANTI-SEIZING COATING
23	1	HANDWHEEL	GREY IRON	SEE NOTE 5
24a	1	BODY GASKET	GYLON 3510®	THICK 1/8" (3.2mm)
31c	1	OUTLET FLANGE GASKET	PTFE	
32	3	PACKING RING	PTFE	
33	4	OUTLET FLANGE STUD	A320 G.F.L7	METRIC BOLTING
34	4	HANWAY STUD	A320 G.F.L7	UNC BOLTING
36	2	NUT PILLAR	A194 G.F.4	METRIC BOLTING
37	1	DISC NUT	HASTELLOY C276	
41	1	LUBRICATOR	ZINC COATED STEEL	
42	1	MANUFACTURER PLATE	STAINLESS STEEL	
43a	2	SQUARE LOCK WASHER	STAINLESS STEEL	
43b	1	LOCK WASHER	HASTELLOY C276	
44	1	HANDWHEEL NUT	STEEL	
46	2	SCREW AND NUT	A4-40	METRIC BOLTING
51a	1	"O" RING	VITON®	
51b	2	"O" RING	VITON®	
57a	4	HANWAY NUT	A194 G.F.4	UNC BOLTING
57b	8	NUT (OUTLET FLANGE)	A194 G.F.4	METRIC BOLTING
62	4	CAPS	PLASTIC	
69	2	FRICTION WASHER	A192 F430	
99	1	OUTLET FLANGE	A350 LF2 + ELECTROLESS NIKEL PLATED	
119	1	PROTECTION GASKET	ETHYLENE PROPYLENE	
127	1	PLUG TNP1	A350 LF2	PTFE SEALING
162	1	EXPANSION PLUG	STEEL	
1b	1	BODY	A350 LF2	
3b	1	BALL DISC	PTFE-25%GRAPHITE	
5b	1	BALL SUPPORT	A350 LF2	
31b	1	GASKET	PTFE	
46	8	BODY SCREW	A320 G.F.L7	METRIC BOLTING
55	1	SEAT FLANGE	MONEL 400	
116	1	SPRING	INCONEL 600	

VITON® IS A REGISTERED TRADEMARK OF 'DUPONT'
GYLON 3510® IS A REGISTERED TRADEMARK OF 'GARLOCK'



ANGLE VALVE MARKING
HEAT CHARGE N°xxxx
Serial N°xxxx xxx
descote
MODEL 922
Hast C / Stellite trims
A350 LF2
TEMP LIMIT: -50°F/+250°F
PRESSURE LIMIT: 500 psig

NOTES :

- FULL COMPLIANCE WITH CHLORINE INSTITUTE PAMPHLET 168
- ACCOMMODATE WITH 24A EMERGENCY HOOD (CHLORINE INSTITUTE DWG.N0.141) WITHOUT REMOVING THE OUTLET PLUG ITEM 127
- AAR APPROVAL N°E-079010
- DIMENSIONS ON BRACKETS ARE GIVEN IN mm
- HANDWHEEL DESIGN COMPATIBLE WITH 'POWELL' ADAPTER (PNEUMATIC ACTUATOR)
- VALVE CLOSING LIGHT TORQUE 18.4 to 22.1 ft.lbs (2.5 to 3 mdaN)
- MAXI CLOSING TORQUE BEFORE DAMAGING 39 ft.lbs (5.3 mdaN)

DESIGN LIMITS --> PRESSURE: 500 psig / TEMPERATURE: -50°F to +250°F

AAR APPROVAL No E-182101

CV	CG	NEW AAR APPROVAL No E-182101	01/08/17	J
CG	AD	ADD ITEMS 0743/046/049/052	18/02/14	H
CG	AD	AS BUILT SINCE 2011 MASS PRODUCTION DESIGN 1	21/03/11	G
LC	CG	SEAT FLANGE ITEM 55 MADE OF MONEL 400 INSTEAD OF HASTELLOY C276	10/10/12	F
CG	AD	AS BUILT	21/12/11	E
CG	CG	ADD DIMENSIONS	22/02/10	D
CG	CG	UP DATED 302 DESIGN ACCORDING TO HOLLAND 30° HANWAY DWG N0.9100-CS-REF	08/09/09	C
CG	CG	UP DATED MARKING ACCORDING TO AAR H-1002 APPENDIX A (par. 7.3)	20/06/07	B
CG	CG	INITIAL ISSUE	21/05/07	A

1" ANGLE VALVE (BELLOW SEATED)
+ INTERNAL BALL CHECK
-FOR CHLORINE RAIL ROAD TANK CARS-

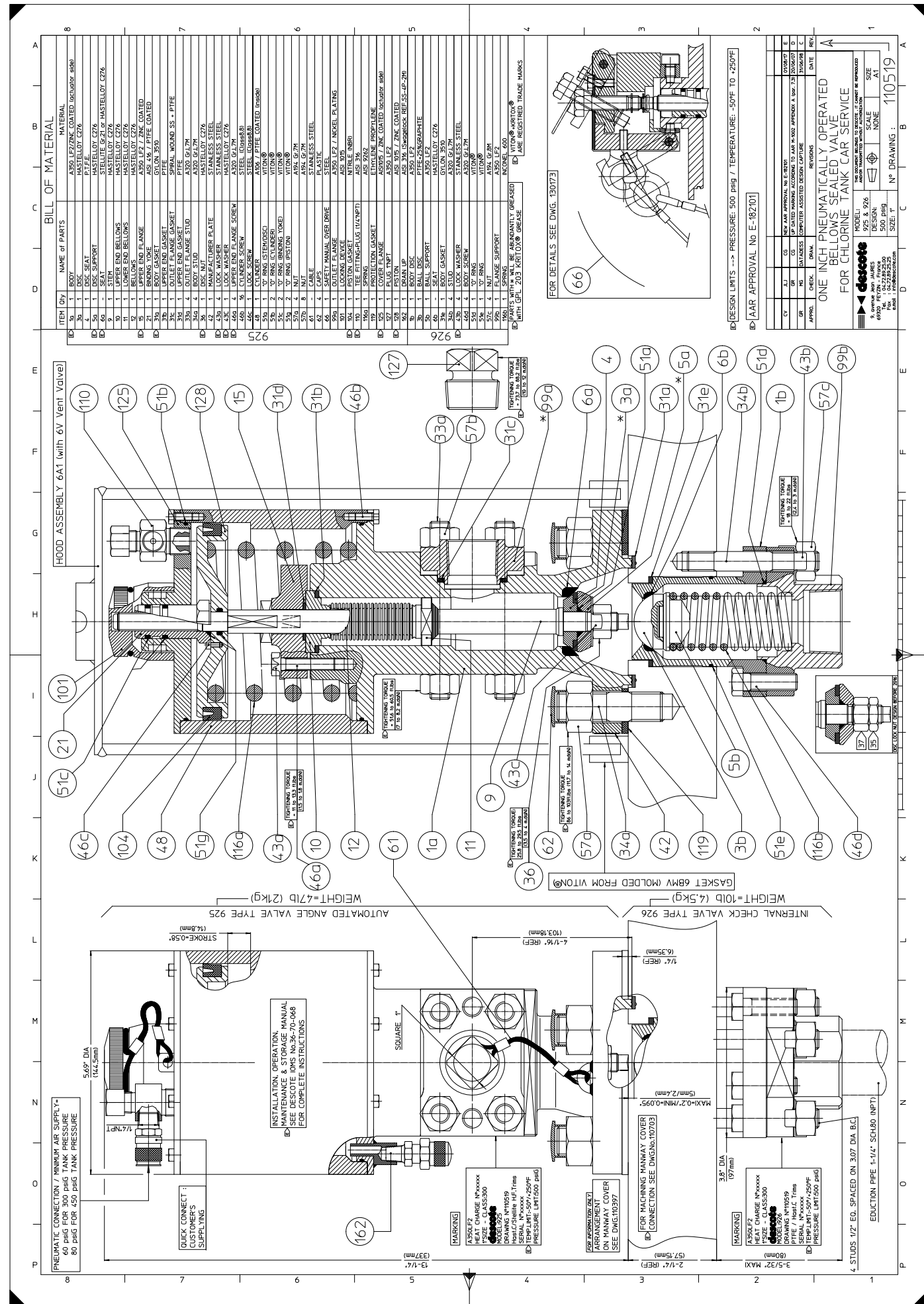
descote
9 avenue Jean Jaurès
69320 FEVZIN - France
Tel : 04.72.89.25.20
Fax : 04.72.89.25.25
www.descote.com

MODEL: 922-926
DESIGN: 500PSI
OUTLET: TNP1

THIS DOCUMENT BELONGS TO descote - IT CANNOT BE REPRODUCED
AND/OR TRANSMITTED WITHOUT AUTHORIZATION

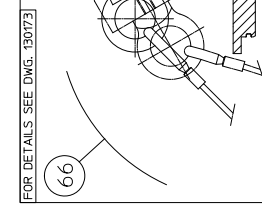
SCALE: NONE
SIZE: A1

DRAWING NO : 110659



BILL OF MATERIAL

ITEM	QTY	NAME OF PARTS	MATERIAL
1	1	HOOD ASSEMBLY 6A1 (with 6V Vent Valve)	
2	1	INTERNAL CHECK VALVE TYPE 926	
3	1	AUTOMATED ANGLE VALVE TYPE 925	
4	1	MANWAY COVER	
5	1	MANWAY COVER	
6	1	MANWAY COVER	
7	1	MANWAY COVER	
8	1	MANWAY COVER	
9	1	MANWAY COVER	
10	1	MANWAY COVER	
11	1	MANWAY COVER	
12	1	MANWAY COVER	
13	1	MANWAY COVER	
14	1	MANWAY COVER	
15	1	MANWAY COVER	
16	1	MANWAY COVER	
17	1	MANWAY COVER	
18	1	MANWAY COVER	
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20	1	MANWAY COVER	
21	1	MANWAY COVER	
22	1	MANWAY COVER	
23	1	MANWAY COVER	
24	1	MANWAY COVER	
25	1	MANWAY COVER	
26	1	MANWAY COVER	
27	1	MANWAY COVER	
28	1	MANWAY COVER	
29	1	MANWAY COVER	
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127	1	MANWAY COVER	
128	1	MANWAY COVER	



DESIGN LIMITS → PRESSURE: 500 psig / TEMPERATURE: -50°F TO +250°F

AAAR APPROVAL No. E-182701

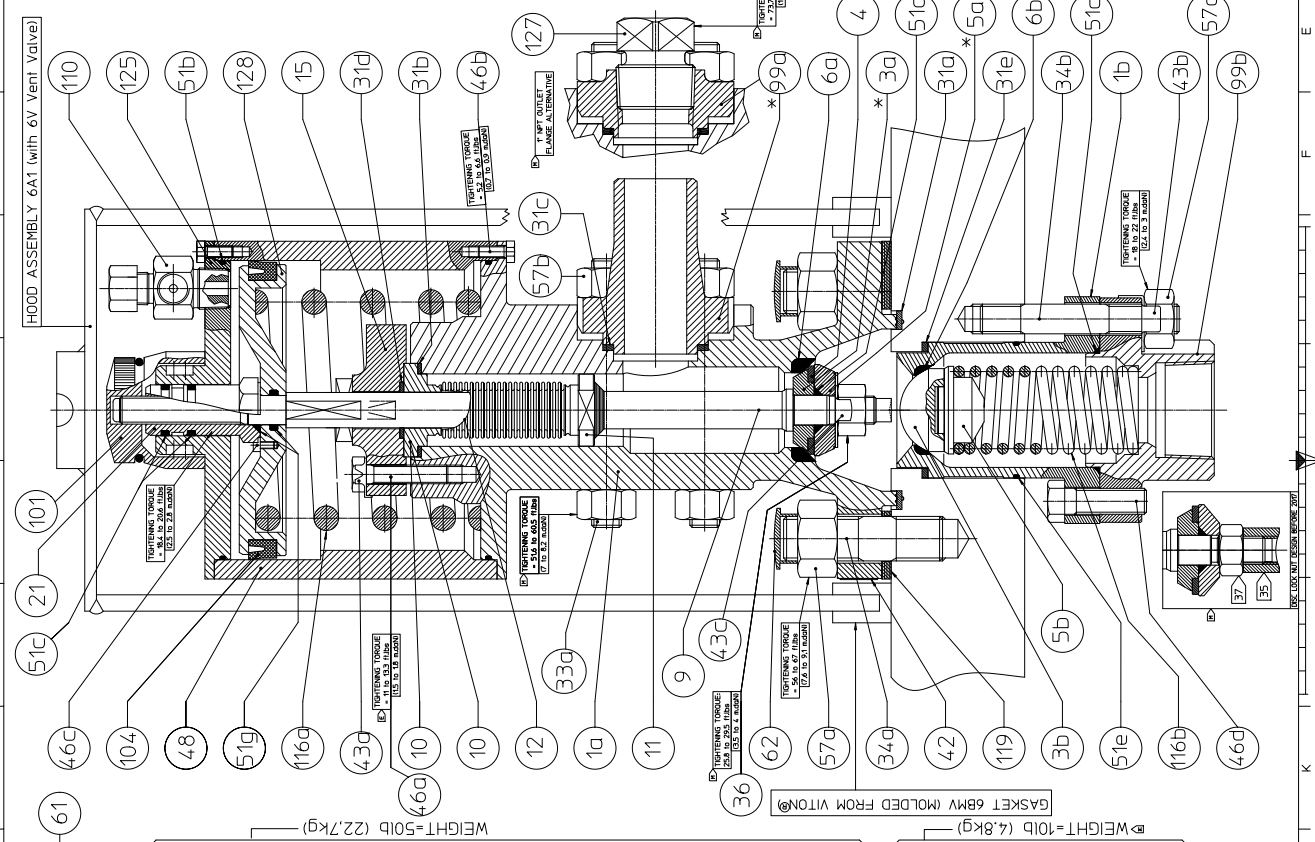
CV	AL	CS	NEW AAR APPROVAL No. E-182701	GROUP 17	E
GR	AL	CS	UP DATED MARKING ACCORDING TO AAR H-1002 APPENDIX A (REV. 7/20) 2010/07/07	GROUP 18	D
APPROV.	CHECK	DESIGN	DATEBASED COMPUTER ASSISTED DESIGN CAPTURE	GROUP 19	C
			REVISIONS	GROUP 20	B
				GROUP 21	A

ONE INCH PNEUMATICALLY OPERATED BELLOWS SEALED VALVE FOR CHLORINE TANK CAR SERVICE

descoTE
 MODEL: 925 & 926
 DESIGN: 11/2010
 6800 FETZER - FRANCE
 TEL: 33 (0)3 29 25 25
 FAX: 33 (0)3 29 25 25
 WWW.DESCOTE.COM

SCALE: NONE
 SIZE: AT
 NO. DRAWING: 110519

ITEM	QTY	NAME OF PARTS	MATERIAL
1	1	101	HOOD ASSEMBLY 6A1 (with 6V Vent Valve)
2	1	104	DISC SEAT
3	1	105	DISC SUPPORT
4	1	106	UPPER END BELLOWS
5	1	107	LOWER END BELLOWS
6	1	108	BELOW FLANGE
7	1	109	BELOW FLANGE
8	1	110	BELOW FLANGE
9	1	111	BELOW FLANGE
10	1	112	BELOW FLANGE
11	1	113	BELOW FLANGE
12	1	114	BELOW FLANGE
13	1	115	BELOW FLANGE
14	1	116	BELOW FLANGE
15	1	117	BELOW FLANGE
16	1	118	BELOW FLANGE
17	1	119	BELOW FLANGE
18	1	120	BELOW FLANGE
19	1	121	BELOW FLANGE
20	1	122	BELOW FLANGE
21	1	123	BELOW FLANGE
22	1	124	BELOW FLANGE
23	1	125	BELOW FLANGE
24	1	126	BELOW FLANGE
25	1	127	BELOW FLANGE
26	1	128	BELOW FLANGE
27	1	129	BELOW FLANGE
28	1	130	BELOW FLANGE
29	1	131	BELOW FLANGE
30	1	132	BELOW FLANGE
31	1	133	BELOW FLANGE
32	1	134	BELOW FLANGE
33	1	135	BELOW FLANGE
34	1	136	BELOW FLANGE
35	1	137	BELOW FLANGE
36	1	138	BELOW FLANGE
37	1	139	BELOW FLANGE
38	1	140	BELOW FLANGE
39	1	141	BELOW FLANGE
40	1	142	BELOW FLANGE
41	1	143	BELOW FLANGE
42	1	144	BELOW FLANGE
43	1	145	BELOW FLANGE
44	1	146	BELOW FLANGE
45	1	147	BELOW FLANGE
46	1	148	BELOW FLANGE
47	1	149	BELOW FLANGE
48	1	150	BELOW FLANGE
49	1	151	BELOW FLANGE
50	1	152	BELOW FLANGE
51	1	153	BELOW FLANGE
52	1	154	BELOW FLANGE
53	1	155	BELOW FLANGE
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55	1	157	BELOW FLANGE
56	1	158	BELOW FLANGE
57	1	159	BELOW FLANGE
58	1	160	BELOW FLANGE
59	1	161	BELOW FLANGE
60	1	162	BELOW FLANGE



MARKING

A350LF3 HEAT CHARGE N°xxxxxx
 SIZE - CLASS300
 DRAWING N°110026
 SERIAL N°xxxxxx
 PRESSURE LIMIT 500 psig

SEE ARRANGEMENT ON MANWAY COVER

SEE DMG.10705

FOR MACHINING MANWAY COVER CONNECTION

SEE DMG.10704

MAX=0.2"/MIN=0.095"

MARKING

A350LF3 HEAT CHARGE N°xxxxxx
 SIZE - CLASS300
 DRAWING N°110026
 SERIAL N°xxxxxx
 PRESSURE LIMIT 500 psig

3.716" (94.3mm)

3.174" (81mm)

3.174" (81mm)

3.174" (81mm)

4 STUDS 1/2" ØD. SPACED ON 3.07 DIA B.C.
 EDUCATION PIPE 1-1/4" SCH.80 (NPT)

INTERNAL CHECK VALVE TYPE 926
 WEIGHT=10lb (4.8kg)

AUTOMATED ANGLE VALVE TYPE 925
 WEIGHT=50lb (22.7kg)

STROKE=0.58"

5.69" DIA (144.25mm)

4-1/16" (REF)

1/4" (REF)

6.35mm

FOR MACHINING MANWAY COVER CONNECTION SEE DMG.10704

INSTALLATION, OPERATION, MAINTENANCE & STORAGE MANUAL
 SEE DESCOTE IMS No.36-70-048 FOR COMPLETE INSTRUCTIONS

BILL OF MATERIAL

DESIGN LIMITS -> PRESSURE: 500 psig / TEMPERATURE: -150°F TO +250°F

FOR DETAILS SEE DMG.13073

DESIGN APPROVAL No E-182101

CV	BL	CS	NEW AIR APPROVAL No E-182101	GROUP N°
LC	CG	UP DATING (FOR MANUFACTURE) MATERIAL USED AS 6.13M	21051970	L
LC	CG	ADD WORKING TORQUE (ITEM 57)	5040472	K
LC	CG	ADD WORKING TORQUE (ITEM 35)	5074148	J
AD	GD	ADD MACHINING TORQUE (ITEM 57)	6030100	H
AD	GD	ADD MACHINING TORQUE (ITEM 35)	6030100	G
AD	AD	ADD DATED (FOR ITEM 35) 304 316 316L 316Ti	6030100	F
AD	AD	UP DATING (ITEM 99) MATERIAL USED IN LPT WAS 400 300	21051970	E

MODEL: 925 & 926
 DESIGN: 110026
 SIZE: 1 1/2" (38.1mm) DIA
 DATE: 04/01/2008
 SCALE: NONE
 AT: 110626
 N° DRAWING: 110626



Valves for Hazardous Applications

descote references on trailer & rail transportation valves

Customer	Country	Site	Process	Model	Fluid / Media	Chemical designation	Fluid state	Date
ALLIED SIGNAL	USA	Geismar, La	Transportation	925/926	HF	AHF	anhydrous	Since 1997
AXIALL (ex PPG)	Canada	Beauharnois	Transportation	922/926	Chlorine	C12		
AXIALL (ex PPG)	Canada	Beauharnois	Transportation	921	Chlorine	C12		
AXIALL (ex PPG)	USA	Lake Charles	Transportation	921	Chlorine	C12	Liquid	Since 2013
AXIALL (ex PPG)	USA	Lake Charles	Transportation	922/926	Chlorine	C12	Liquid	2013
CELPAY Cellulose	BRAZIL	Jacarei, SP	Transportation	921	Chlorine	C12		Since 1999
CHEMOURS (ex DUPONT)	USA	Corpus Christi, Tx	Transportation	925/926	HF	HF	anhydrous	
CHEMOURS (ex DUPONT)	USA	LaPorte	Transportation	925/926	HF	HF	anhydrous	
CHEMOURS (ex DUPONT)	USA	Washington works, WV	Fluoroproducts	925/926	HCl			
DOW	USA	Freeport, Tx	Transportation	925/926	A-Hydrogen chloride	AHCl	anhydrous	
DOW Corning	USA	Midland, Mi	Transportation	921	A-Hydrogen chloride	AHCl		
DOW Corning	USA	Midland, Mi	Transportation	925/926	A-Hydrogen chloride	AHCl		Since 2006
HEMLOCK ALLIED SIGNAL	Canada	Ontario	Transportation	925/926	HF	HF	anhydrous	
HEMLOCK Semiconductor	USA	Midland, Mi	Transportation	925/926	A-Hydrogen chloride	AHCl	anhydrous	
HONEYWELL	USA	Geismar, La	Transportation	925/926	HF	AHF	Liquid & Gas	Since 2009
IBL	BRAZIL	Sao Paulo	Transportation	921	Chlorine	C12	Liquid	
INTERNATIONAL PAPER	USA	Natchez	Transportation	921	Chlorine	C12		
IQUISA	MEXICO	Monterrey	Transportation	921	Chlorine	C12	anhydrous	Since 2000
MEXICHEM	MEXICO	Pajaritos	Transportation	921	HF	HF		
MEXICHEM	MEXICO	Matamoros	Transportation	925/926	Chlorine	C12		
NORFLUOR	MEXICO		Transportation	925/926	HF	AHF	anhydrous	
OXY	USA	Taft	Transportation	921	Chlorine	C12		
OXY	USA	Taft	Transportation	925/926	Chlorine	C12		
PETROQUIMICA	ARGENTINA	Rio Tercero	Transportation	921	Chlorine	C12		Since 1994
SOLVAY FLUOR	MEXICO		Transportation	925/926	HF		anhydrous	Since 2018
SOLVAY Specialty Polymers	USA	Orange	Transportation	925/926	HF	AHF	anhydrous	Since 2019
TAIWAN CHLORINE	TAIWAN		Transportation	921	Chlorine	C12		
WESTLAKE	USA	Calvert City, Ky		921	Chlorine	C12		Since 2008
YEE FONG Chemicals	TAIWAN		Transportation	921	Chlorine	C12		Since 2013



WHAT DESERVES TO BE DONE DESERVES TO BE DONE WELL



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