

Ⓑ

PAAD115359	HT CW static pressure adjustment: with separate expansion tank
PAAD115360	HT CW static pressure adjustment: with common HT/LT expansion tank

SEE TABLE

Net Weight												
0,001	0,001											
1	1	003	107.429.532.500	CONCEPT GUIDANCE Freshwater generation			107.429.532		0,001			
1	-	002	PAAD115353	CENTRAL COOLING WATER SYSTEM HT_static-pressure: EXP tank			DAAD036166		0,001			
-	1	001	PAAD115326	CENTRAL COOLING WATER SYSTEM HT_static-pressure: EXP tank			DAAD036161		0,001			
Quantity PER ENGINE		SEQ NO	Material ID	Material Name Dimension, Occ			Standard or Drawing	Basic Material Material Standard	Weight GR./NET			
PAAD115360	PAAD115359	Free space for lic.						Q-Code	Main Drw. H			
								XXXXXX				
								Standard ISO; JIS				
Modif.	⊖	EAAD084475	09.04.2013	Ⓐ	EAAD089971	25.11.2018	Ⓑ	EAAD092431	02.03.2020	⊙		
Material ID		Number	Drawn date		Number	Drawn date		Number	Drawn date		Number	Drawn date



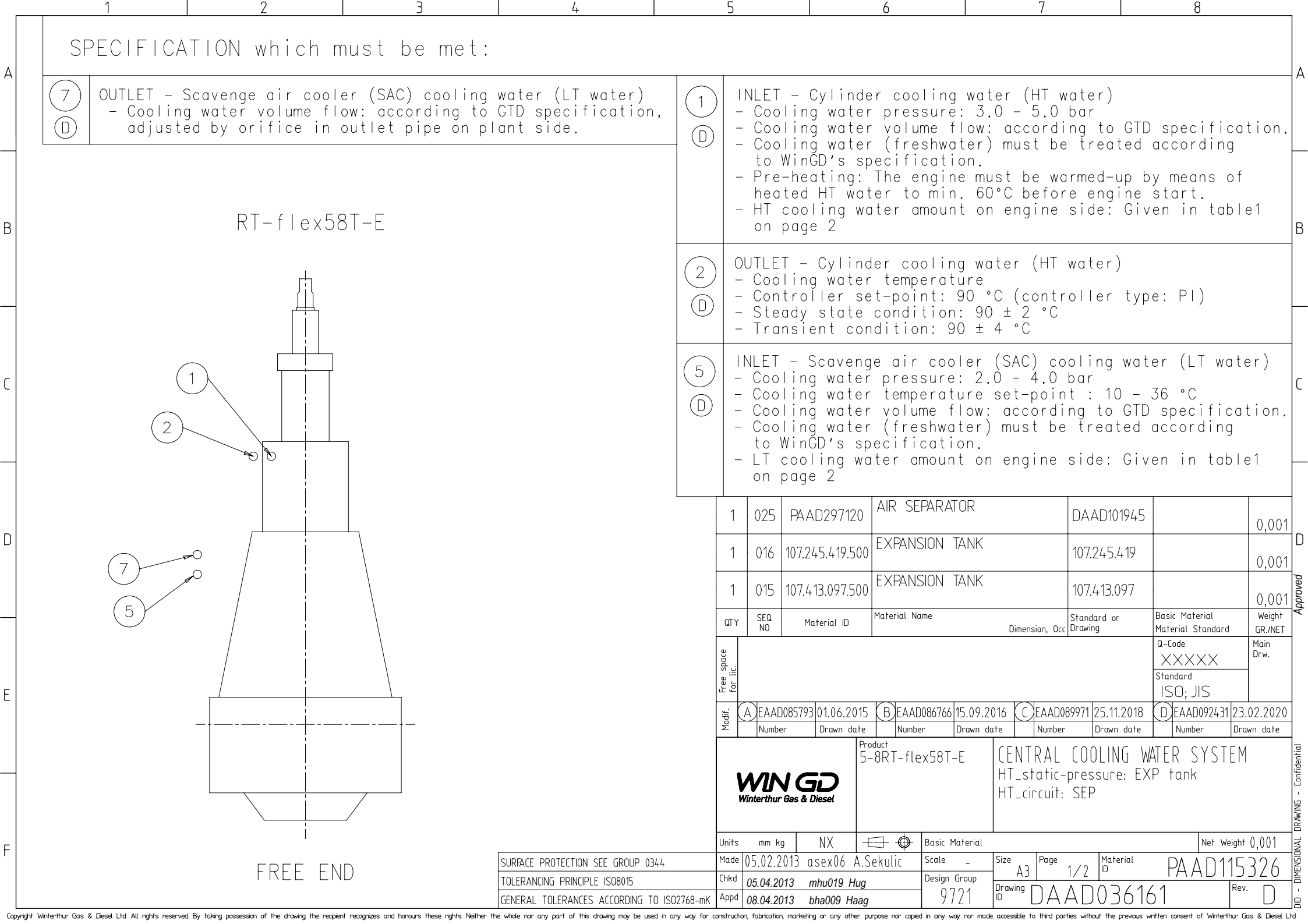
Product
5-8RT-flex58T-E

COOLING WATER SYSTEMS

Kuehlwassersystem

Units mm kg NX Basic Material Net Weight

SURFACE PROTECTION SEE GROUP 0344	Made	04.02.2013	asex06	A.Sekulic	Scale	-	Size	A3	Page	1/1	Material ID	
TOLERANCING PRINCIPLE ISO8015	Chkd	05.04.2013	mhu019	Hug	Design Group	9721	Drawing ID	DAAD036170			Rev.	B
GENERAL TOLERANCES ACCORDING TO ISO2768-mK	Appd	08.04.2013	bha009	Haag								



SYSTEM PROPOSAL

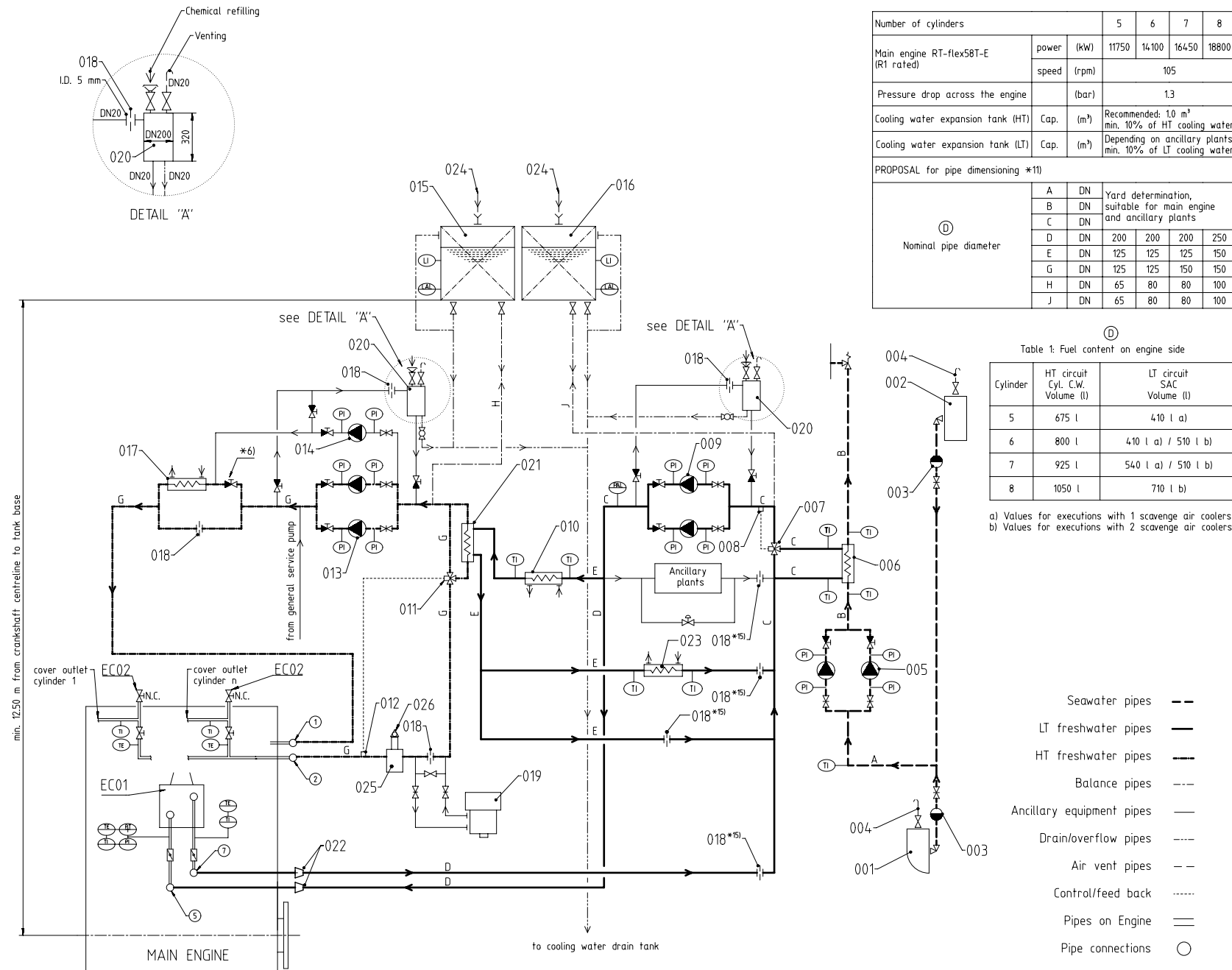
Pos.	ENGINE COMPONENTS *3)
EC01	Scavenge air cooler (SAC)
EC02	Manual vent valve, for each cylinder *14)

Pos.	ENGINE CONNECTIONS *2) ①
①	INLET - Cylinder cooling water (HT water)
②	OUTLET - Cylinder cooling water (HT water)
⑤	INLET - Scavenge air cooler (SAC) cooling water (LT water) *7)
⑦	OUTLET - Scavenge air cooler (SAC) cooling water (LT water) *7)

Pos.	SYSTEM COMPONENTS *1)
001	Low sea chest
002	High sea chest
003	Seawater strainer
004	Air vent (air vent pipe or equal venting system acc. to shipyard's design)
005	Seawater circulating pump
006	Central cooler (LT cooling water)
007	Automatic temperature control valve for LT circuit *12)
008	LT water temperature sensor *12)
009	Cooling water pump for LT circuit
010	Lubricating oil cooler
011	Automatic temperature control valve for HT circuit *13)
012	HT water temperature sensor *13)
013	Cylinder cooling water pump for HT circuit
014	Pre-heating circulating pump (optional, cap. 10% from cylinder cooling pump *8)
015	HT water expansion tank (link to detail drawing on page 1)
016	LT water expansion tank (link to detail drawing on page 1)
017	Pre-heater for main engine (HT circuit)
018	Throttling disc *5)
019	Freshwater generator
020	Chemical treatment refill unit *4)
021	HT cooling water cooler
022	Transition piece (adapter) *9)
023	MDO/MGO cooler
024	Filling pipe / inlet chemical treatment
025	Air separator (link to details drawing on page 1)
026	Automatic venting unit

- Remarks: ①
- Air vent and drain pipes not shown on drawing. Shall be installed where required.
 - Air vent and drain pipes must be fully functional at all inclination angles of the ship at which the engine must be operational.
- *1) To be delivered by external supplier and to be installed by the shipyard.
*2) Refer to the "Pipe Connection Plan" for the execution and location of the engine pipe connection.
*3) To be delivered by the engine manufacturer, i.e. already equipped on engine side.
*4) To be installed for cooling water after-treatment during regular engine operation. Convenient dimensions are provided in view "A". Other designs are possible.
*5) When using a valve, lock in proper position to avoid mishandling.
*6) Only when pos. 014 is installed.
*7) The inlet and outlet pipes to SAC must be designed to allow engine thermal expansion, or be fitted with expansion pieces.
*8) For guidance only, final layout according to actual engine pre-heating requirements.
*9) Installed as required (check with "Pipe Connection Plan")
*10) All given diameters are valid for the mentioned rating and serve just as an example. To make the layout for the project specific rating please refer to D9730 "Fluid velocities and flow rates, recommended values for pipework of diesel plants" for selecting the appropriate pipe diameter. Rating specific flow rates are provided by GTD.
*12) A constant temperature at engine inlet must be maintained. Temperature set-point can be selected between 10 - 36 °C. WinGD recommends a set-point of 25 °C. A lower LT water temperature assists the main engine to reach lower BSFC. If the ancillary plants require a temperature lower or greater than the LT water set-point, a separate water supply system with different temperature set-point has to be installed (please refer to the system proposal in MIM)
*13) A constant temperature at engine outlet must be maintained. Required controller set-point for main engine operation is 90 °C.
*14) Only to be used for manual venting of isolated cylinders after maintenance. To be kept close during engine operation.
*15) Optional, only to be installed if needed for hydraulic balancing.

G-Code XXXXXX Standard ISO, JIS		Main Dwg.
Model	Free space for file	
Number	Drawn date	Number
① EAAD085793	01.06.2015	② EAAD086766
③ EAAD089971	25.11.2018	④ EAAD092431
⑤ EAAD092431	23.02.2020	
Product 5-BRT-flex58T-E		CENTRAL COOLING WATER SYSTEM HT static-pressure: EXP tank HT circuit: SEP
Units mm kg NX		Scale -
Made 05.02.2013 asex06 A.Sekulic		Size A1
Chd 05.04.2013 mhu019 Haug		Page 2/2
Appd 08.04.2013 bha009 Haug		Material ID PAAD115326
SURFACE PROTECTION SEE GROUP 0344		Drawing ID DAAD036161
TOLERANCING PRINCIPLE ISO8015		Rev. D
GENERAL TOLERANCES ACCORDING TO ISO2768-mK		



①

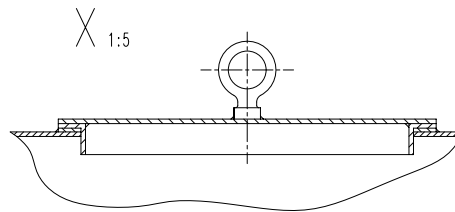
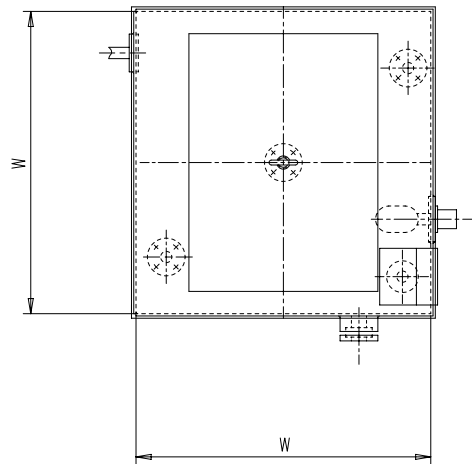
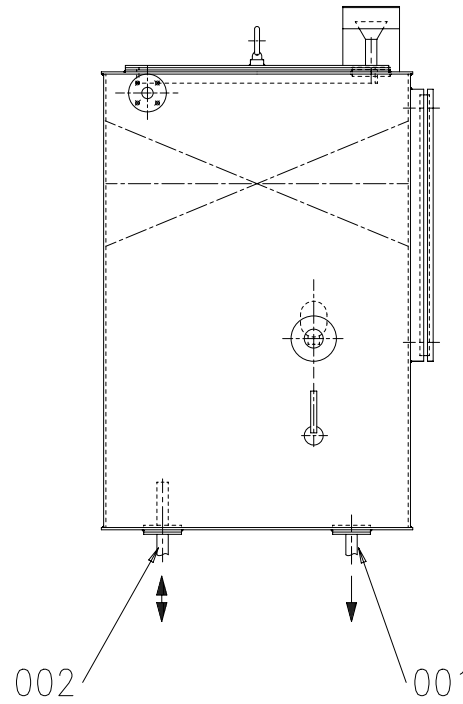
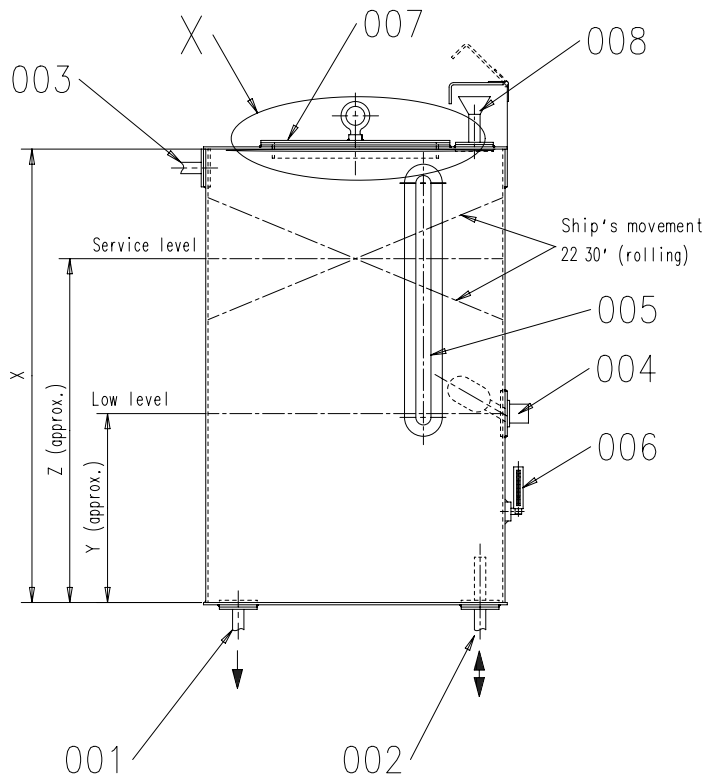
Table 1: Fuel content on engine side

Cylinder	HT circuit Cyl. C.W. Volume (l)	LT circuit SAC Volume (l)
5	675 l	410 l a)
6	800 l	410 l a) / 510 l b)
7	925 l	540 l a) / 510 l b)
8	1050 l	710 l b)

a) Values for executions with 1 scavenge air coolers.
b) Values for executions with 2 scavenge air coolers.

- Seawater pipes ---
- LT freshwater pipes —
- HT freshwater pipes —
- Balance pipes ---
- Ancillary equipment pipes —
- Drain/overflow pipes ----
- Air vent pipes --
- Control/feed back - - - -
- Pipes on Engine ==
- Pipe connections ○

min. 1250 mm from crankshaft centreline to tank base



drawing view shows dimensioning scale for 0.75 m³ capacity

Pos.	Description
001	Drain from HT circuit
002	Balance pipe from HT circuit
003	Overflow/air vent
004	Low level alarm
005	Level indicator *1)
006	Thermometer
007	Inspection cover *2)
008	Filling pipe/inlet chemical treatment *2)

Remarks:

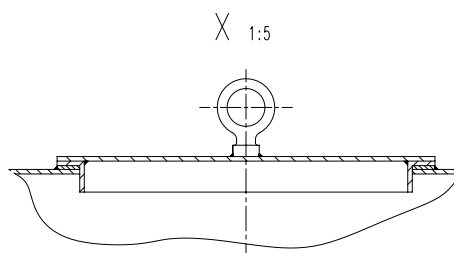
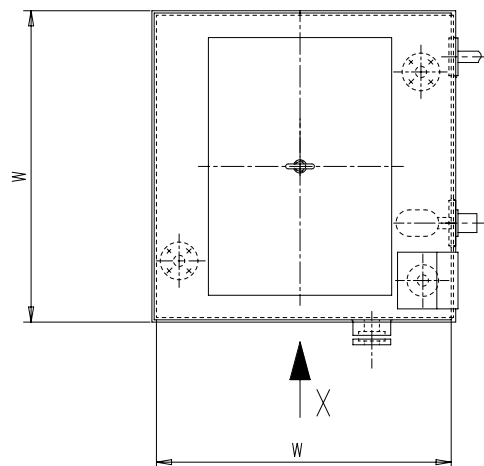
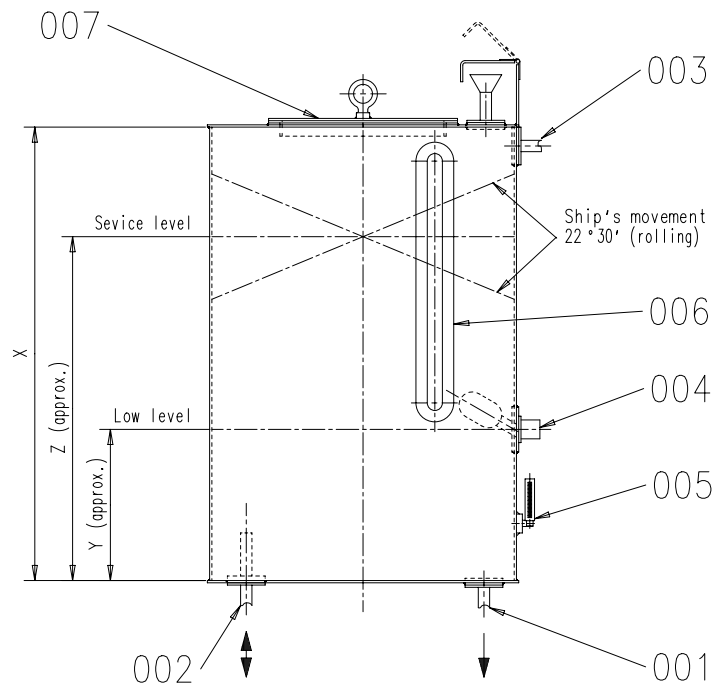
- *1) Level indicator can be omitted if an alternative is fitted.
- *2) Other designs like hinged covers, etc. are also possible

- Ⓐ - Tank dimensions are defined by the Tank capacity, as seen in Table 1.
For capacity and pipe diameter, refer to drawing 'Central cooling water system'.

Table 1: Tank dimensions

HT Tank capacity	W	X	Y	Z
(m ³)	(mm)	(mm)	(mm)	(mm)
0.5	800	800	330	640
0.75	800	1200	500	960
1.0	800	1600	670	1280
1.25	1000	1250	530	1000
1.5	1000	1500	630	1200
1.75	1000	1750	730	1400
2.0	1000	2000	830	1600

Free space for lic.	Q-Code XXXXXX Standard ISO; JIS				Main Drw.
Modif.	EAAD091567	15.11.2019			
Number		Drawn date	Number	Drawn date	Number
Product W-25		EXPANSION TANK CENTRAL COOLING WATER HT CIRCUIT Ausgleichstank Zentralkuehlwassersystem HT circuit			
Units	mm kg	NX	Basic Material	Net Weight 0,001	
SURFACE PROTECTION SEE GROUP 0344		Made	16.04.2009 M.PRSTEC	Scale	1:10
TOLERANCING PRINCIPLE ISO8015		Chkd		Design Group	A2
GENERAL TOLERANCES ACCORDING TO ISO2768-mK		Appd	30.04.2009 MPR002 Prstec	7921	107.413.097
				Material ID	107.413.097.500
				Rev.	A



Drawn for 0.75 m³ capacity

Pos.	Description
001	Drain
002	Balance pipe from LT circuit
003	Overflow/air vent
004	Low level alarm
005	Thermometer
006	Level indicator *1)
007	Inspection cover *2)
008	Filling pipe/inlet chemical treatment *2)

Remarks:

- *1) Level indicator can be omitted if an alternative is fitted.
- *2) Other designs like hinged covers, etc. are also possible

- For required tank capacity and pipe diameters refer to drawing 'Central cooling water system'

Table 1: Tank dimensions

LT tank capacity	W	X	Y	Z
(m ³)	(mm)	(mm)	(mm)	(mm)
0.5	800	800	330	640
0.75	800	1200	500	960
1.0	800	1600	670	1280
1.25	1000	1250	530	1000
1.5	1000	1500	630	1200
1.75	1000	1750	730	1400
2.0	1000	2000	830	1600

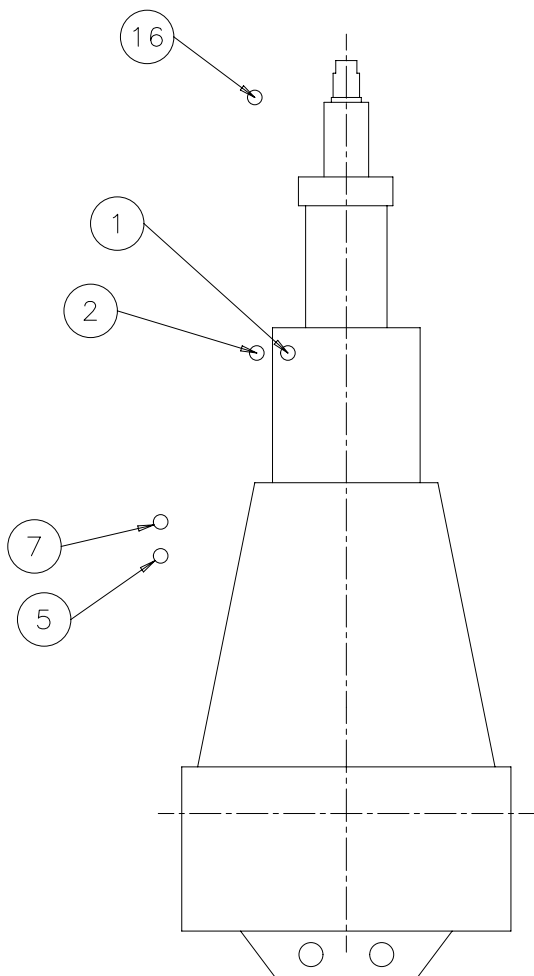
Modif.	Free space for lic.						Q-Code XXXXXX Standard ISO; JIS	Main Drw.			
	A	EAAD014356	16.06.1997	B	7-37.090	16.08.2007	C	EAAD083145	25.01.2012	D	EAAD091029
Number		Drawn date		Number		Drawn date		Number		Drawn date	
								Product W-25		EXPANSION TANK CENTRAL COOLING WATER LT CIRCUIT Ausgleichstank Zentralkuehlwassersystem LT	
Units		mm kg		NX		Basic Material		Net Weight		0,001	
SURFACE PROTECTION SEE GROUP 0344				Made		11.06.1997		T.LANDERT		Scale 1:10	
TOLERANCING PRINCIPLE ISO8015				Chkd				Design Group		Size A2 Page 1/1	
GENERAL TOLERANCES ACCORDING TO ISO2768-mK				Appd		11.06.1997		WCH001 Service User		Drawing ID 107.245.419	
										Material ID 107.245.419.500	
										Rev. D	

SPECIFICATION which must be met: (C)

- (16) OUTLET - Cylinder cooling air vent
- Vented through expansion tank
- Water flow restricted by orifice

- (1) INLET - Cylinder cooling water
- Cooling water pressure: 3.0 - 5.0 bar
- Cooling water volume flow according to GTD specification.
- Cooling water (freshwater) must be treated according to WinGD's specification.
- (2) OUTLET - Cylinder cooling water
- Cooling water temperature
Controller set-point: 90 °C (controller type: PI)
Steady state condition: 90 ± 2 °C
Transient condition: 90 ± 4 °C
- (5) INLET - SAC LT cooling water
- Cooling water pressure: 2.0 - 4.0 bar
- Cooling water temperature: 10 - 36 °C
- Cooling water volume flow: according to GTD specification.
- Cooling water (freshwater) must be treated according to WinGD's specification.
- (7) OUTLET - SAC LT cooling water
- Cooling water volume flow: according to GTD specification, adjusted by orifice in outlet pipe on plant side.

RT-flex58T-E

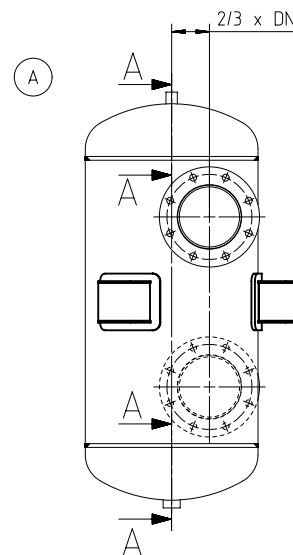
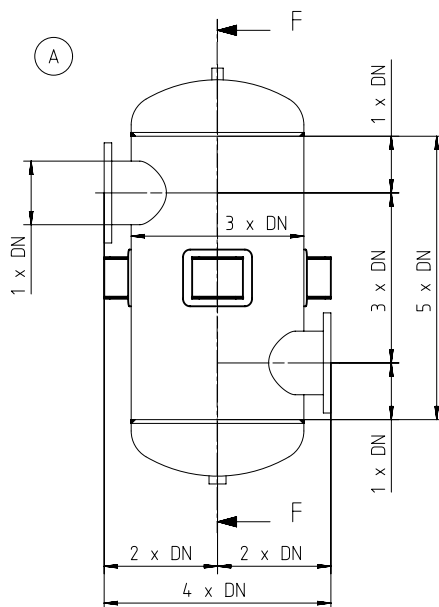
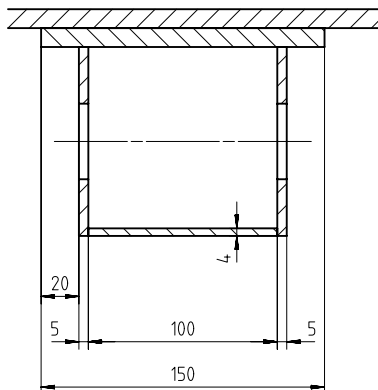


FREE END

1	002	107.413.098.500	EXPANSION TANK		107.413.098		0,001
QTY	SEQ NO	Material ID	Material Name		Standard or Drawing	Basic Material Material Standard	Weight GR./NET
						Q-Code XXXXX	Main Drw.
						Standard ISO; JIS	
Modif.	(A) EAAD085793	01.06.2015	(B) EAAD086766	15.09.2016	(C) EAAD089971	01.11.2018	
	Number	Drawn date	Number	Drawn date	Number	Drawn date	
			Product 5-8RT-flex58T-E		CENTRAL COOLING WATER SYSTEM WITH INTEGRATED HT CIRCUIT Zentralkuehlwassersystem		
Units	mm kg	NX		Basic Material		Net Weight 0,001	
SURFACE PROTECTION SEE GROUP 0344			Made	05.02.2013 asex06 A.Sekulic	Scale	-	
TOLERANCING PRINCIPLE ISO8015			Chkd	05.04.2013 mhu019 Hug	Design Group	PAAD115353	
GENERAL TOLERANCES ACCORDING TO ISO2768-mK			Appd	08.04.2013 bha009 Haag	721	Drawing ID	DAAD036166
						Rev.	C

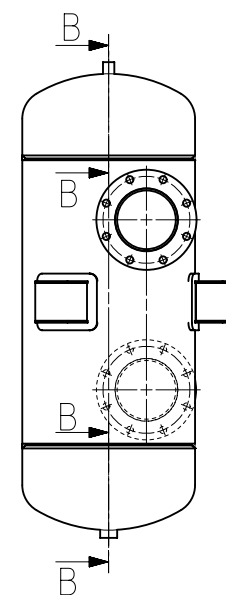
AIR SEPARATOR PROPOSAL

SECTION H-H
SCALE 1:2



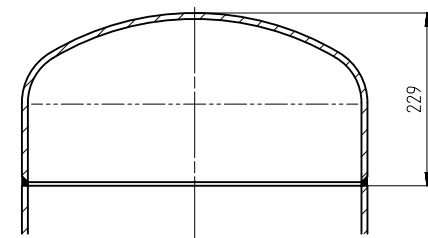
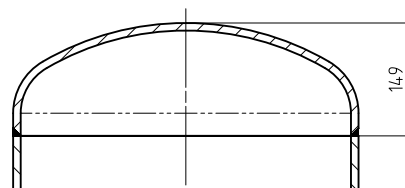
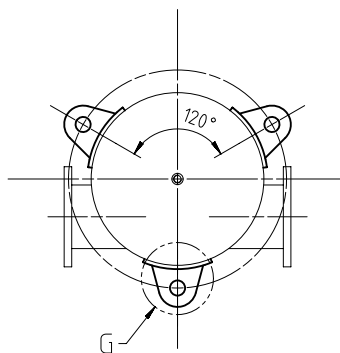
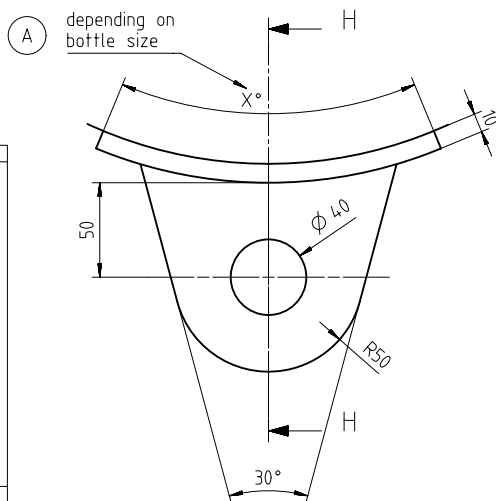
SECTION A-A
SCALE 1:5

JIS

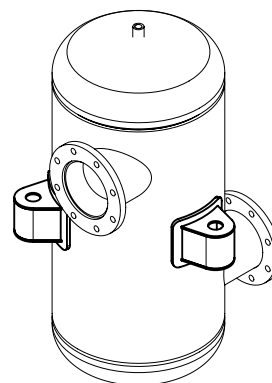


SECTION B-B
SCALE 1:5

DETAIL G
SCALE 1:2



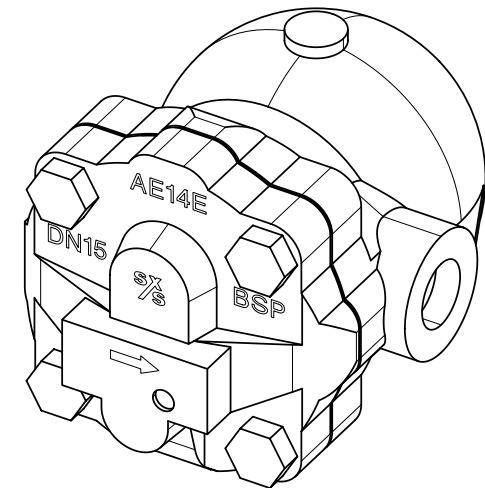
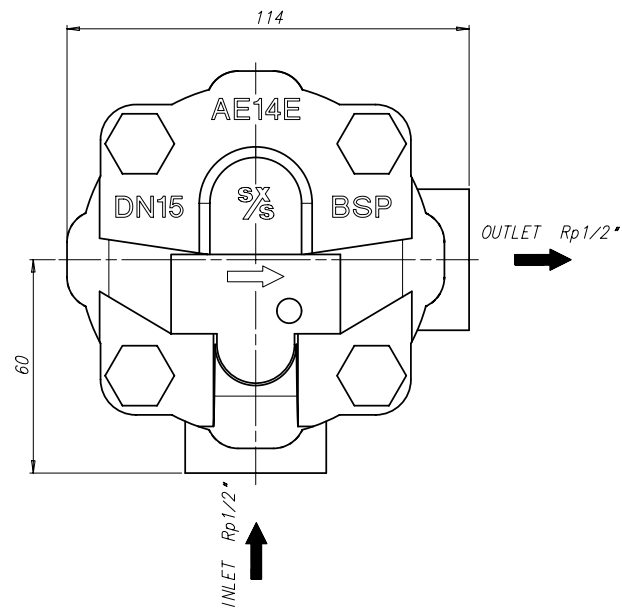
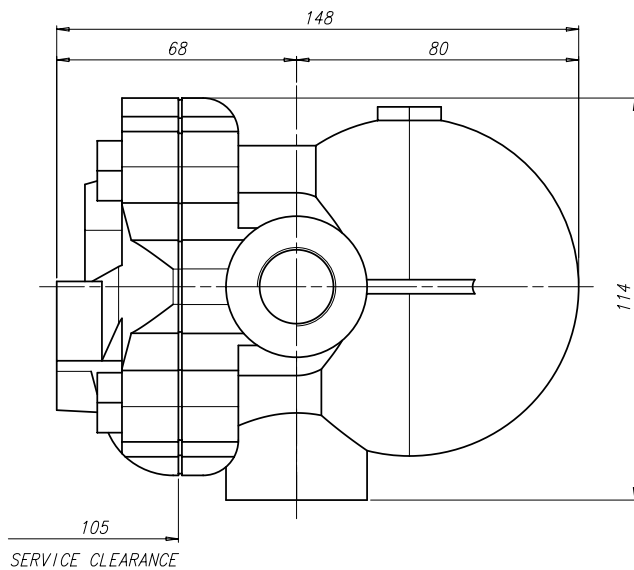
Qualitätsstufe D (siehe 4-107.345.444)
WELD QUALITY LEVEL D (SEE 4-107.345.444)



Free space for file		Q-Code XXXXX Standard ISO; JIS		Main Drw.	
Modif.	EAAD090871	09.09.2019			
Number	Drawn date	Number	Drawn date	Number	Drawn date
Product W-2S		AIR SEPARATOR			
Units mm kg		NX		Basic Material	
Made 05.06.2018 Kashyap patel		Scale 1:10		Size A2	
Chkd 17.07.2018 wwa008 Wang		Design Group		Material PAAD297112	
Appd 17.07.2018 mhu019 Hug		9721		Drawing ID DAAD101890	
SURFACE PROTECTION SEE GROUP 0344		TOLERANCING PRINCIPLE ISO8015		Net Weight 0.001	
TOLERANCING PRINCIPLE ISO8015		TOLERANCING PRINCIPLE ISO8015		Rev. A	

TOLERANCE GRADES						
TOL.	DIMENSION NO.					
GRADE	1	2	3	4	5	6
A	±1.0	*	±2.0	±2.0	±0.5	±0.5
B	±3.0	*	±3.0	±2.0	±0.5	±0.5
C	±6.0	*	±3.0	±2.0	±0.5	±0.5
A	±2.0	*	±2.0	±2.0	±1.0	±1.0
B	±4.0	*	±3.0	±3.0	±1.0	±1.0
C	±6.0	*	±3.0	±3.0	±1.0	±1.0

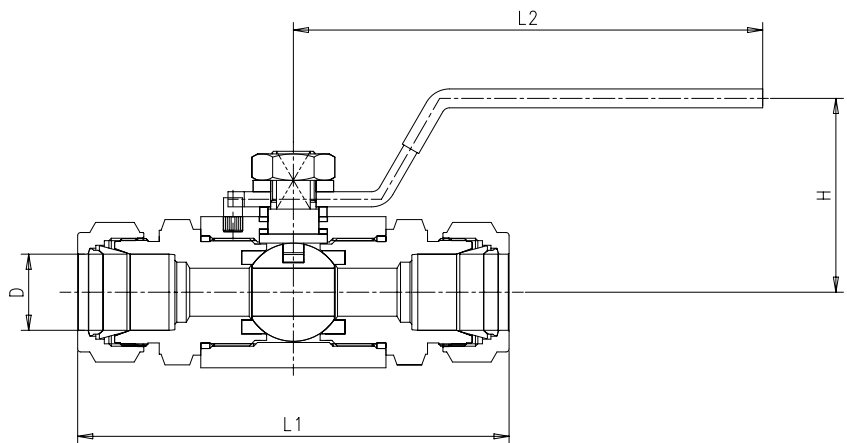
Rohrklasse PIPE CLASS	III	Medium MEDIUM	Wasser WATER	Pruefueberdruck TEST OVERPRESSURE	7.5	bar
Schweiss Qualitaet WELDING QUALITY LEVEL	D	Toleranzklasse TOLERANCE GRADE	B	Betr.druck OPER. PRESS.	5	bar



SUPPLIER:
SPIRAX SARCO AG
www.SpiraxSarco.com

SPECIFICATIONS:
AUTOMATIC AIR VENT SPIRAX SARCO TYPE AE14E, PN16, SIZE Rp1/2"
PRESSURE LEVEL : PN16
MAX. OPERATING PRESSURE (PMO): 14 bar
MAX. OPERATING TEMPERATURE (TMO): 127° C
MAX. PRESSURE DIFFERENCE: 14 bar

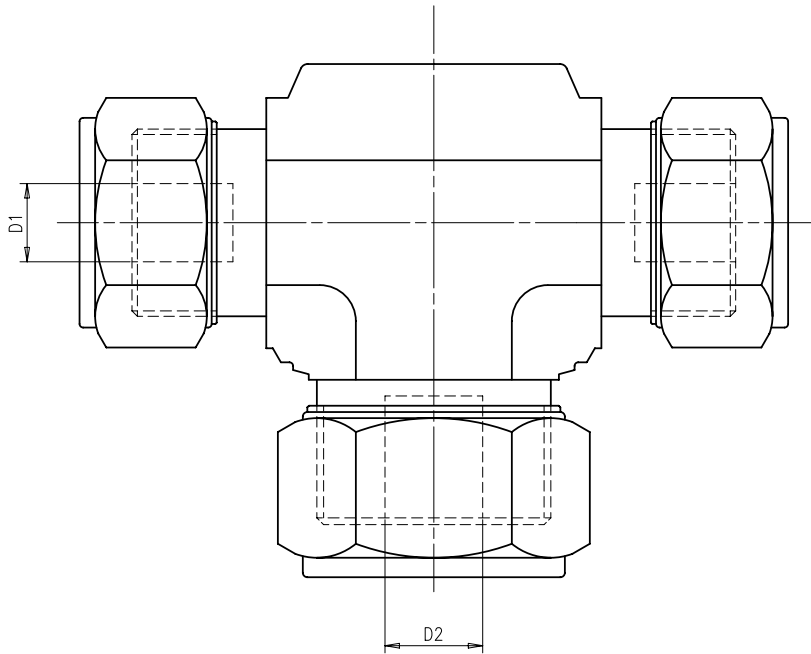
Free space for lib.		Q-Code XQXXX		Main Drw.	
Standard ISO		JIS			
Modif.	Number	Drawn date	Number	Drawn date	Number
Product W-2S		AUTOMATIC VENTING UNIT ORDER DRAWING Entlüftungsautomat Bestellzeichnung			
Units mm kg		IDE		Basic Material	
Net Weight 2.5					
SURFACE PROTECTION SEE GROUP 0344		Made 08.04.2015 Aditya Gole		Scale 1:1	
TOLERANCING PRINCIPLE ISO8015		Chkd 27.05.2015 ast044 Stephan		Size A2	
GENERAL TOLERANCES ACCORDING TO ISO2768-mK		Appd 27.05.2015 bha009 Haag		Page 1/1	
				Material ID PAAD185947	
				Drawing ID DAAD065150	
				Rev. -	



Artikel Nummer	DN	TUBE D	L1	L2	H	MAX. WORKING PRESSURE	OPERATING TEMPERATURE (°C)	Seat Material
107.324.703.001	DN07	10	104.91	108.75	38.41	6000 (413bar)	-30 to +180	PCTFE
107.324.703.002	DN09	12	109.71	108.75	38.41			
107.324.703.003	DN12	16	114.96	124.2	51.3			
107.324.703.004	DN15	20	114.16	124.2	53.1			
107.324.703.005	DN20	25	134.08	149.2	58.1			

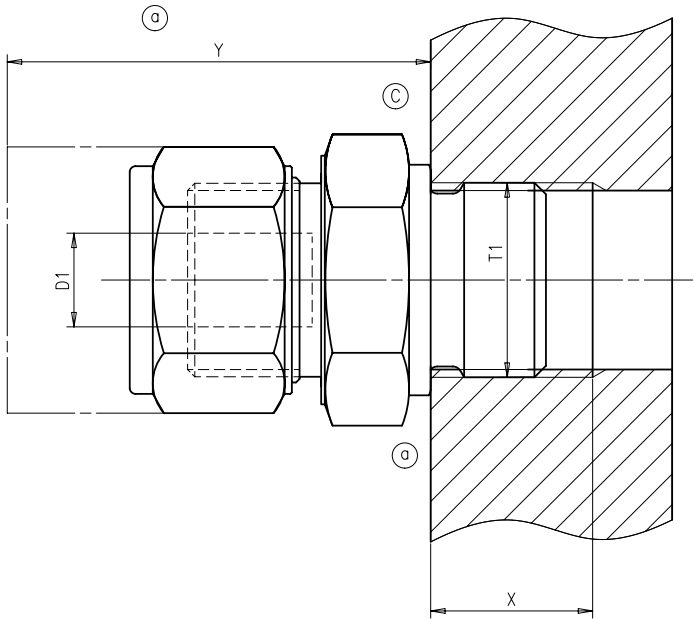
siehe Hauptzeichnung für Spezifikation
SEE MAIN DRAWING FOR SPECIFICATION

1	005	107.324.703.005	BALL VALVE	DN20	107.324.703	Steel	1,24									
1	004	107.324.703.004	BALL VALVE	DN15	107.324.703	Steel	1,03									
1	003	107.324.703.003	BALL VALVE	DN12	107.324.703	Steel	0,55									
1	002	107.324.703.002	BALL VALVE	DN9	107.324.703	Steel	0,511									
1	001	107.324.703.001	BALL VALVE	DN7	107.324.703	Steel	0,494									
QTY	SEQ NO	Material ID	Material Name	Dimension, Occ	Standard or Drawing	Basic Material Material Standard	Weight GR./NET									
Free space for file						Q-Code XXXXXX	Main Drw.									
						Standard ISO; JIS										
Modif.	A	EAAD700077	13.04.2011	B	EAAD083575	01.10.2012	C	EAAD096344	12.03.2021							
		Number	Drawn date		Number	Drawn date		Number	Drawn date							
 Winterthur Gas & Diesel			Product W-2S		BALL VALVE											
					Kugelhahn											
Units	mm kg	NX				Basic Material					Net Weight					
Made	29.04.2005			sga006		S.GASSER		Scale	1:1		Size	A2	Page	1/1	Material ID	
Chkd						S.Gasser		Design Group								
Appd	04.05.2005			MFR001		Frei		0333		Drawing ID		107.324.703			Rev.	C



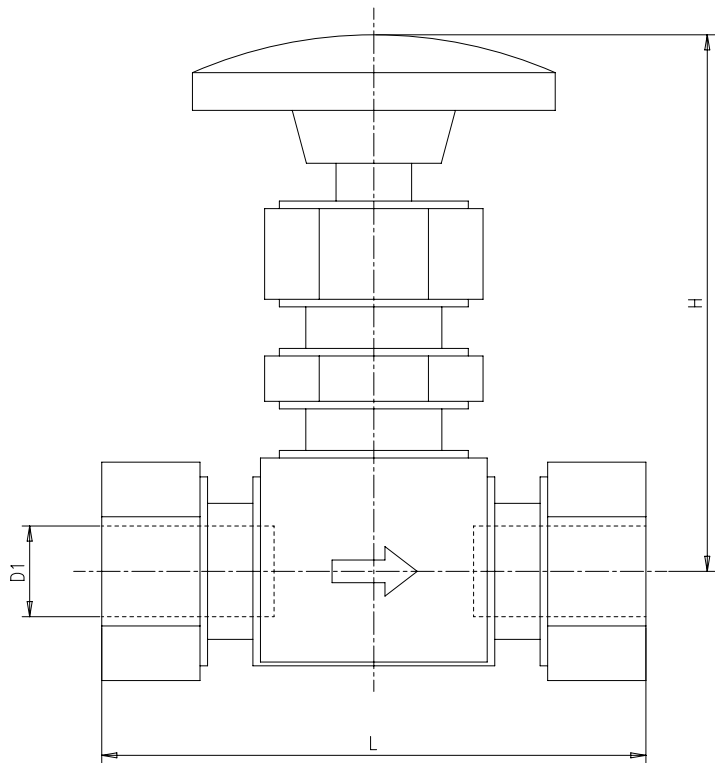
Artikel Nummer	DN	TUBE D1	TUBE D2
107.324.131.001	DN07	10	6
107.324.131.002	DN09	12	8
107.324.131.003	DN09	12	10
107.324.131.004	DN09	12	16
107.324.131.005	DN12	16	6
107.324.131.006	DN12	16	8
107.324.131.007	DN12	16	10
107.324.131.008	DN12	16	12
107.324.131.009	DN12	16	20
107.324.131.010	DN15	20	10
107.324.131.011	DN15	20	12
107.324.131.012	DN15	20	16
107.324.131.013	DN15	20	25
107.324.131.014	DN20	25	16
107.324.131.015	DN20	25	20

B siehe Hauptzeichnung für Spezifikation SEE MAIN DRAWING FOR SPECIFICATION									
1	015	107.324.131.015	TEE UNION	25 x 20 x 25	107.324.131	Steel	Steel	0.642	
1	014	107.324.131.014	TEE UNION	25 x 16 x 25	107.324.131	Steel	Steel	0.615	
1	013	107.324.131.013	TEE UNION	20 x 25 x 20	107.324.131	Steel	Steel	0.592	
1	012	107.324.131.012	TEE UNION	20 x 16 x 20	107.324.131	Steel	Steel	0.471	
1	011	107.324.131.011	TEE UNION	20 x 12 x 20	107.324.131	Steel	Steel	0.443	
1	010	107.324.131.010	TEE UNION	20 x 10 x 20	107.324.131	Steel	Steel	0.46	
1	009	107.324.131.009	TEE UNION	16 x 20 x 16	107.324.131	Steel	Steel	0.442	
1	008	107.324.131.008	TEE UNION	16 x 12 x 16	107.324.131	Steel	Steel	0.262	
1	007	107.324.131.007	TEE UNION	16 x 10 x 16	107.324.131	Steel	Steel	0.25	
1	006	107.324.131.006	TEE UNION	16 x 8 x 16	107.324.131	Steel	Steel	0.243	
1	005	107.324.131.005	TEE UNION	16 x 6 x 16	107.324.131	Steel	Steel	0.241	
1	004	107.324.131.004	TEE UNION	12 x 16 x 12	107.324.131	Steel	Steel	0.271	
1	003	107.324.131.003	TEE UNION	12 x 10 x 12	107.324.131	Steel	Steel	0.195	
1	002	107.324.131.002	TEE UNION	12 x 8 x 12	107.324.131	Steel	Steel	0.19	
1	001	107.324.131.001	TEE UNION	10 x 6 x 10	107.324.131	Steel	Steel	0.127	
QTY	SEQ NO	Material ID	Material Name	Dimension/Occ.Dimension	Standard or Drawing	Basic Material Material Standard	Q-Code XXXXX	Weight DR / NET	Main Drw.
							Standard ISO JIS		
Modell	A	EAAD700021	13.01.2011	B	EAAD083575	24.02.2012			
	Number	Drawn date	Number	Drawn date	Number	Drawn date	Number	Drawn date	
WIN GD Winterthur Gas & Diesel			Product W-2S		TEE UNION T-Verschraubung				
Units	mm	kg	IDE		Basic Material			Net Weight	
SURFACE PROTECTION SEE GROUP 0344		Mod	17.12.2004	W.DÖERIG	Scale	1:1	Size	A1	Page
TOLERANCING PRINCIPLE ISO8015		Chkd			Design Group		Material ID	107.324.131	Rev.
GENERAL TOLERANCES ACCORDING TO ISO2768-mK		Appd	28.04.2005	mfr001 Frei	0333	Drawing ID			B



a	Material ID	DN	TUBE D1	T1	X	Y
	107.324.101.001	DN04	6	G1/8	9	45
	107.324.101.002	DN04	6	G1/4	14	50
	107.324.101.003	DN04	6	G3/8	14	50
	107.324.101.004	DN04	6	G1/2	17	55
a	107.324.101.005	DN06	8	G1/8	9	45
	107.324.101.006	DN06	8	G1/4	14	50
	107.324.101.007	DN06	8	G3/8	14	50
	107.324.101.008	DN06	8	G1/2	17	55
	107.324.101.009	DN07	10	G1/4	14	50
a	107.324.101.010	DN07	10	G3/8	14	50
	107.324.101.011	DN07	10	G1/2	17	60
	107.324.101.012	DN09	12	G1/4	14	55
	107.324.101.013	DN09	12	G3/8	14	55
	107.324.101.014	DN09	12	G1/2	17	60
a	107.324.101.015	DN09	12	G3/4	19	65
	107.324.101.016	DN12	16	G3/8	14	55
	107.324.101.017	DN12	16	G1/2	17	60
	107.324.101.018	DN15	20	G1/2	17	65
	107.324.101.019	DN15	20	G3/4	19	65
a	107.324.101.020	DN20	25	G3/4	19	70
	107.324.101.021	DN20	25	G1	21	70
	107.324.101.022	DN20	25	G1 1/4	23	75
	107.324.101.023	DN20	25	G1 1/2	25	80

① siehe Hauptzeichnung für Spezifikation SEE MAIN DRAWING FOR SPECIFICATION												
1	023	107.324.101.023	SCREW-IN UNION	25xG1 1/2	107.324.101	Steel	Steel		0.733			
1	022	107.324.101.022	SCREW-IN UNION	25xG1 1/4	107.324.101	Steel	Steel		0.543			
1	021	107.324.101.021	SCREW-IN UNION	25xG1	107.324.101	Steel	Steel		0.329			
1	020	107.324.101.020	SCREW-IN UNION	25xG3/4	107.324.101	Steel	Steel		0.247			
1	019	107.324.101.019	SCREW-IN UNION	20xG3/4	107.324.101	Steel	Steel		0.223			
1	018	107.324.101.018	SCREW-IN UNION	20xG1/2	107.324.101	Steel	Steel		0.173			
1	017	107.324.101.017	SCREW-IN UNION	16xG1/2	107.324.101	Steel	Steel		0.125			
1	016	107.324.101.016	SCREW-IN UNION	16xG3/8	107.324.101	Steel	Steel		0.094			
1	015	107.324.101.015	SCREW-IN UNION	12xG3/4	107.324.101	Steel	Steel		0.195			
1	014	107.324.101.014	SCREW-IN UNION	12xG1/2	107.324.101	Steel	Steel		0.126			
1	013	107.324.101.013	SCREW-IN UNION	12xG3/8	107.324.101	Steel	Steel		0.084			
1	012	107.324.101.012	SCREW-IN UNION	12xG1/4	107.324.101	Steel	Steel		0.076			
1	011	107.324.101.011	SCREW-IN UNION	10xG1/2	107.324.101	Steel	Steel		0.116			
1	010	107.324.101.010	SCREW-IN UNION	10xG3/8	107.324.101	Steel	Steel		0.069			
1	009	107.324.101.009	SCREW-IN UNION	10xG1/4	107.324.101	Steel	Steel		0.056			
1	008	107.324.101.008	SCREW-IN UNION	8xG1/2	107.324.101	Steel	Steel		0.112			
1	007	107.324.101.007	SCREW-IN UNION	8xG3/8	107.324.101	Steel	Steel		0.063			
1	006	107.324.101.006	SCREW-IN UNION	8xG1/4	107.324.101	Steel	Steel		0.043			
1	005	107.324.101.005	SCREW-IN UNION	8xG1/8	107.324.101	Steel	Steel		0.031			
1	004	107.324.101.004	SCREW-IN UNION	6xG1/2	107.324.101	Steel	Steel		0.111			
1	003	107.324.101.003	SCREW-IN UNION	6xG3/8	107.324.101	Steel	Steel		0.063			
1	002	107.324.101.002	SCREW-IN UNION	6xG1/4	107.324.101	Steel	Steel		0.045			
1	001	107.324.101.001	SCREW-IN UNION	6xG1/8	107.324.101	Steel	Steel		0.028			
QTY	SEQ NO	Material ID	Material Name	Dimension/Occ.Dimension	Standard or Drawing	Basic Material	Material Standard	Q-Code	Weight DR./NET			
Modif. Free space for I.C.						Standard		XXXXXX	Main Drw.			
						ISO						
						JIS						
A		7-32.082	20.04.2005	B	7-34.170	30.06.2005	C	7-54.378	31.05.2007	D	EAAD083575	09.02.2012
		Number	Drawn date		Number	Drawn date		Number	Drawn date		Number	Drawn date
WIN GD Winterthur Gas & Diesel			Product W-2S			SCREW-IN UNION Einschraubverschraubung						
Units	mm	kg	IDE			Basic Material				Net Weight		
Mod	17.12.2004		WDA001 W. Doerig		Scale	%	Size	A1	Page	1/1	Material ID	
Chkd					Design Group							
Appd	28.02.2005		ps1007 Stiefenhofer		0333		Drawing ID		107.324.101		Rev. D	



siehe Hauptzeichnung für Spezifikation
SEE MAIN DRAWING FOR SPECIFICATION

Artikel Nummer	DN	TUBE D1	L	H(open)
107.324.704.001	DN07	10	66	71
107.324.704.002	DN09	12	72	71
107.324.704.003	DN12	16	94	99
107.324.704.004	DN15	20	97	99
107.324.704.005	DN20	25	97	99
107.324.704.006	DN06	8	59,2	60

1	006	107.324.704.006	NEEDLE VALVE	DN6	107.324.704	Steel	0,304					
1	005	107.324.704.005	NEEDLE VALVE	DN20	107.324.704	Steel	1,34					
1	004	107.324.704.004	NEEDLE VALVE	DN15	107.324.704	Steel	1,19					
1	003	107.324.704.003	NEEDLE VALVE	DN12	107.324.704	Steel	0,903					
1	002	107.324.704.002	NEEDLE VALVE	DN9	107.324.704	Steel	0,495					
1	001	107.324.704.001	NEEDLE VALVE	DN7	107.324.704	Steel	0,438					
QTY	SEQ NO	Material ID	Material Name	Dimension, Occ	Standard or Drawing	Basic Material Material Standard	Weight GR./NET					
Free space for file						Q-Code XXXXXX	Main Dwg.					
						Standard ISO; JIS						
Modif.	B	7-61981	12.03.2008	C	EAAD700013	19.01.2011	D	EAAD083575	01.10.2012	E	EAAD096344	12.03.2021
		Number	Drawn date		Number	Drawn date		Number	Drawn date		Number	Drawn date
 Winterthur Gas & Diesel			Product W-2S		NEEDLE VALVE							
					Nadelventil							
Units		mm kg		NX				Basic Material		Net Weight		

SURFACE PROTECTION SEE GROUP 0344	Made	19.05.2005	sga006	S.GASSER	Scale	2:1	Size	A2	Page	1/1	Material ID			
TOLERANCING PRINCIPLE ISO8015	Chkd				Design Group	0333	Drawing ID	107.324.704					Rev.	E
GENERAL TOLERANCES ACCORDING TO ISO2768-mK	Appd	19.05.2005	MFR001	Frei										

MIDS - WinGD RT-flex58T-E - Cooling Water System (DG9721)

TRACK CHANGES

DATE	SUBJECT	DESCRIPTION
2017-05-29	DRAWING SET	First web upload
2018-12-13	DAAD036170 DAAD036161 DAAD036166	Main and system drgs – new revision
2020-09-02	107.413.097 107.245.419	System drgs – new revision
2020-10-07	DAAD036170 DAAD036161 DAAD101945 DAAD101890 DAAD065150 107.324.131 107.324.101 107.324.703	Main and system drgs – new revision
2021-03-30	107.413.098 DAAD101945 107.324.703 107.324.704	System drgs – new revision

DISCLAIMER

© Copyright by Winterthur Gas & Diesel Ltd.

All rights reserved. No part of this document may be reproduced or copied in any form or by any means (electronic, mechanical, graphic, photocopying, recording, taping or other information retrieval systems) without the prior written permission of the copyright owner.

THIS PUBLICATION IS DESIGNED TO PROVIDE AN ACCURATE AND AUTHORITATIVE INFORMATION WITH REGARD TO THE SUBJECT-MATTER COVERED AS WAS AVAILABLE AT THE TIME OF PRINTING. HOWEVER, THE PUBLICATION DEALS WITH COMPLICATED TECHNICAL MATTERS SUITED ONLY FOR SPECIALISTS IN THE AREA, AND THE DESIGN OF THE SUBJECT-PRODUCTS IS SUBJECT TO REGULAR IMPROVEMENTS, MODIFICATIONS AND CHANGES. CONSEQUENTLY, THE PUBLISHER AND COPYRIGHT OWNER OF THIS PUBLICATION CAN NOT ACCEPT ANY RESPONSIBILITY OR LIABILITY FOR ANY EVENTUAL ERRORS OR OMISSIONS IN THIS BOOKLET OR FOR DISCREPANCIES ARISING FROM THE FEATURES OF ANY ACTUAL ITEM IN THE RESPECTIVE PRODUCT BEING DIFFERENT FROM THOSE SHOWN IN THIS PUBLICATION. THE PUBLISHER AND COPYRIGHT OWNER SHALL UNDER NO CIRCUMSTANCES BE HELD LIABLE FOR ANY FINANCIAL CONSEQUENTIAL DAMAGES OR OTHER LOSS, OR ANY OTHER DAMAGE OR INJURY, SUFFERED BY ANY PARTY MAKING USE OF THIS PUBLICATION OR THE INFORMATION CONTAINED HEREIN.