

Comparison of Chemco Products and Traditional Coating Systems

(Budget & Time & Equipment's) In Ballast Tanks (According To PSPC)

Coating is a process which contains surface preparation and product applications. For this reason we need to think this process with in two steps.

First step is supply of the material, second will be the surface preparation and product application.

Supply of the product is the simple and easy to predictable parts of that process. Customers can manage their budget and delivery time of their products. But the main part of this process is application.

Application has is related to several parameters. Major parameters are product, surface preparations for products, surface cleaning, temperature, humidity (environmental effects) etc. So most of the products have to be applied in good condition (Humidity max: 85%, Temperature: 10 – 30°C, blasted and clean surface: Min.SA2, dry surface, max.-min. overcoat time etc.) with an educated applicators (Blasters etc.).

These traditional coating systems have some limits which always act the application period, budgets and delivery time of the budgets.

New innovative system, which we introduced as Chemco Technology, has huge benefits during the application period. These products are reducing the application costs and huge time savings due to less pretreatment necessity. Customers can apply the Chemco products with a no limits (Wet surface, 100% humidity, rusty surface, Temperature: 5 – 40°C, no max. overcoat time and less min. overcoat time etc.).

These benefits help the customers for easy and huge time saving applications and 25 – 40 cheaper process costs for painting their tanks, holds, decks with less equipment's.

Here are the calculations of the process with a real yard application prices and product supply prices from the manufacturers which explain us why we have to use better quality with low prices.

Table 1 – Budget Calculations and Applications Include Supply of Traditional Products

BUDGET CALCULATION FOR TRADITIONAL COATING SYSTEMS (10.000 m² - 10 Tanks)					
ITEM	DESCRIPTION	UNIT	UNIT PRICE (\$)	Quantity	Total Price (USD)
	Ballast Tank Coating Works - Traditional Coating Systems (Approved By IMO)				
1.	<u>Wharfage</u>				
a	A safe berthing after and/or prior docking will be provided free of charge while afloat repairs/maintenances are being carried out by the Shipyard. (General Rule For Shipyards)	day	800,00	?	-
b	Docking Cost	day	5.000,00	?	-
2	<u>Ventilation Fans (for Owner's usage)</u>				
a	Ventilation fan for Owner's purposes (per pcs) - For Safety Procedures	day	70,00		
3	<u>Staging</u>				
a	Erection and removal of conventional type staging in closed spaces such as engine room, tanks and void spaces (in case not included in the prices) - Min.40m³ per location	m ³	7,00	5.000	35.000
4	<u>Ballast Tank Coating :</u>				
a	HP fresh water jetting in tanks (750 - 1000 bar)	m ²	9,50		
a.1	HP fresh water jetting in tanks (300 - 500 bar)	m ²	2,20	10.000	22.000
b	Grit blasting to SA 2.5 (full)	m ²	28,50		
c	Grit blasting to SA 2.5 (spot)	m ²	30,00		
d	Grit blasting to SA 2.0 (full)	m ²	27,50	10.000	275.000
e	Grit blasting to SA 2.0 (spot)	m ²	28,50		
f	Grit blasting to SA 1.0 (full)	m ²	21,00		
g	Grit blasting to SA 1.0 (spot)	m ²	23,00		
h	Grit sweeping of tanks (full)	m ²	17,00		
j	Grit sweeping of tanks (spot)	m ²	19,00		
k	2000 bars UHPFW blasting (as per Yard's convenience) inside tanks, (subject to Yard's final confirmation)	m ²	25,00		
l	Hammer / mechanical tool chipping in tanks to ST-2 standards (Min. %10 of the total area)	m ²	20,00	1.000	20.000
m	2x F/C plus 1x S/C painting of tanks	m ²	3,50	10.000	35.000
n	2x T/U plus 1x S/C painting of tanks	m ²	4,20		
o	Dehumidification in tank - per each dehumidifier unit	day	350,00	36	12.600
5	<u>Ballast Tanks - Mud Cleanings</u>				
a	Ballast tank cleaning by collecting of mud and loose scales including lighting and ventilation (per m ³ of tank volume - Min.100m ³ /tank)	m ³	8,00	5.000	40.000
b	Disposal of mud to authorized shore facility (in addition to ballast tank cleaning price) - per m ³ of mud	m ³	180,00	20	3.600
6	<u>Coating Product Prices</u>				
	Traditional Ballast Tank Coating DFT 350 μ (With %30 Loss Factor) (Volume Solid: 70%)	l	8,00	7.150	57.200
Total				TOTAL	500.400 USD
Note	Unit Area Coating Cost For Ballast Tanks With Traditional Coating Systems			m²	50 USD

Table 2 – Traditional Ballast Tank Coating Products Price and Quantity Calculations

Coating (Volume Solid= % 70)	Price	(\$/l)	8 USD
	Area (m ²)	Quantity (Theoretical) (DFT: 350μ)	%30 Loss Fac. (Total Product Quantity - liter)
Coating (Volume Solid= % 70)	10.000	5000	7143

Table 1 shows us that application prices for 10.000 m² area in ballast tanks. During the applications, all steps have to be checked carefully due to limits of products. Also during the floating condition, surface condition of the bottom side of the tanks will **not be suitable** for application. **Humidity** and **wet surface** factors will affect the application, due to this reason vessels have to be docked for bottoms to reduce the application time. During the calculations this **docking time cost** have to be added between 7 – 10 days and also customers have to added some **hidden costs** in dry or floating docks.

Table 2 shows us that the price and quantity calculations of the products for 10.000 m². **Volume solid** content is very important for coating products. According to **PSPC** (Performance Standard for Protective Coatings - IMO) dry film thickness (**DFT**) of the coating has to be minimum **320 micron**. Dry film thickness is relevant with volume solid of the products.

Table 3 shows us the application process on board. Mud cleaning and heavy rust chipping works are major preparations for the ballast tanks. Crew can handle that works with a three shifts (8 hours/shift) and tank will be ready for water jetting before blasting application. After washing cumulated water have to be transfer from the tank then blasting can start after this transfer.

After blasting also cumulated grits have to be transfer to outside of the tank and also for sensitive cleaning vacuum cleaners have to be use before applications. Solvent based traditional coatings can be applied after that process with in good tank condition (Humidity etc.) with a limited time. And also solvents have to be ventilated to outside during the drying period.

At the end of the applications we will have huge grit garbage disposal from the vessels (~30 tons grit for 1000 m² - 1 tons grit can prepare ~35 m² of area as a SA2 surface quality.) For 10.000 m² we need to

transfer 300 tons of grits to vessel and vice versa. With traditional coating systems yards can make their plans with limited resources. **(Attachment 1 - Traditional Products Plan Side Tanks Coating Plan)**

Table 3 – Application Plan for Sample Ballast Tank (1.000m²) With Traditional Coatings

Description of Application	Time	Start	Finish	Resource
No:1 Port Ballast Tank Traditional Coating Product Application (1.000 m²)	274h	01 Jan 08:00	12 Jan 18:00	
Mud Cleaning	24h	01 Jan 08:00	02 Jan 08:00	Crew
Staging	24h	02 Jan 08:00	03 Jan 08:00	Crew
Hammering (For heavy rusts)	24h	03 Jan 08:00	04 Jan 08:00	Crew
Waterjetting (350 - 500 bar)	24h	04 Jan 08:00	05 Jan 08:00	Crew;Waterjet
Water transferring from the tank	36h	04 Jan 16:00	06 Jan 04:00	"Crew;dehumidifier"
Blasting (3 nozzle)	48h	06 Jan 04:00	08 Jan 04:00	"Blaster;Blasting Machine;dehumidifier;Dust Collector"
Grid transferring	48h	07 Jan 04:00	09 Jan 04:00	"Crew;dehumidifier;Dust Collector"
First Coat Application (Jotun, Hempel, International, Chugoku etc.)	12h	09 Jan 04:00	09 Jan 16:00	"Crew;dehumidifier;Ventillation"
Stripe Coat (Jotun, Hempel, International, Chugoku etc.)	12h	09 Jan 16:00	10 Jan 04:00	"Crew;dehumidifier;Ventillation"
Second coat (Jotun, Hempel, International, Chugoku etc.)	12h	10 Jan 04:00	10 Jan 16:00	"Crew;dehumidifier;Ventillation"
Restaging & damaged repairs due to restaging	24h	11 Jan 04:00	12 Jan 04:00	Crew
Ballasting the Tank	2h	12 Jan 16:00	12 Jan 18:00	Master

Resources: Crew, Waterjet, Blasting Machine with 5 tons storage tank, Dust collectors, Min. 300 ton grits, Dehumidifier, ventilators, Big Bags for Grit Disposal, Closed Area For Grits and qualified blasters.

Total Coating Period with 3 nozzle grit blasting capacity (1 nozzle blaster can make ~50 m² surface with SA2 standards in one shifts – 1000m² can be blasted with 6 – 7 shifts) take nearly **50 days**. Increasing of blasting capacity can reduce the period.

Table 4 – Budget Calculations and Applications Include Supply of Chemco Products

Budget Calculation For Chemco Coating Systems (RS 500P & RA 500M) (10.000m² - 10 Tanks)					
ITEM	DESCRIPTION	UNIT	UNIT PRICE (\$)	Quantity	Total Price (USD)
	Ballast Tank Coating Works - Chemco International (RS 500P & RA 500M System - Approved By IMO)				
1.	Wharfage				
a	A safe berthing after and/or prior docking will be provided free of charge while afloat repairs/maintenances are being carried out by the Shipyard. (General Rule For Shipyards)	day		-	-
b	Docking Cost	day		-	-
2	Ventilation Fans (for Owner's usage)				-
a	Ventilation fan for Owner's purposes (per pcs) - For Safety Procedures	day	70,00	-	-
3	Staging				-
a	Erection and removal of conventional type staging in closed spaces such as engine room, tanks and void spaces (in case not included in the prices) - <u>Min.40m³ per location</u>	m ³	7,00	5.000	35.000
4	Ballast Tank Coating :				-
a	HP fresh water jetting in tanks (750 - 1000 bar)	m ²	9,50	10.000	95.000
b	Grit blasting to SA 2.5 (full)	m ²	28,50	-	-
c	Grit blasting to SA 2.5 (spot)	m ²	30,00	-	-
d	Grit blasting to SA 2.0 (full)	m ²	27,50	-	-
e	Grit blasting to SA 2.0 (spot)	m ²	28,50	-	-
f	Grit blasting to SA 1.0 (full)	m ²	21,00	-	-
g	Grit blasting to SA 1.0 (spot)	m ²	23,00	-	-
h	Grit sweeping of tanks (full)	m ²	17,00	-	-
j	Grit sweeping of tanks (spot)	m ²	19,00	-	-
k	2000 bars UHPFW blasting (as per Yard's convenience) inside tanks, (subject to Yard's final confirmation)	m ²	25,00		-
l	Hammer / mechanical tool chipping in tanks to ST-2 standards (Min. %10 of the total area)	m ²	20,00	1.000	20.000
m	2x F/C plus 1x S/C painting of tanks	m ²	3,50	10.000	35.000
n	2x T/U plus 1x S/C painting of tanks	m ²	4,20	-	-
o	Dehumidification in tank - per each dehumidifier unit	day	350,00	-	-
5	Ballast Tanks - Mud Cleanings				-
a	Ballast tank cleaning by collecting of mud and loose scales including lighting and ventilation (per m ³ of tank volume - Min.100m ³ /tank)	m ³	8,00	5.000	40.000
b	Disposal of mud to authorized shore facility (in addition to ballast tank cleaning price) - per m ³ of mud	m ³	180,00	20	3.600
6	Coating Product Prices				-
	RS 500P (100 μ) (With %30 Loss Factor) (Volume Solid: 100%)	kg	17,11	2.300	39.353
	RA 500M (250 μ) (With %30 Loss Factor) (Volume Solid: 100%)	kg	20,04	3.226	64.649
Total				TOTAL	332.602 USD
Note	Unit Area Coating Cost For Ballast Tanks With Traditional Coating Systems			m²	33 USD

Table 5 – Chemco Ballast Tank Coating Products Price and Quantity Calculations

Chemco Product Prices	Currency	GBP/\$	1,62
		GBP	\$
RS 500P (100% Solid)	kg	10,56	17,11
RA 500M (100% Solid)	kg	12,37	20,04
	Area (m ²)	Quantity (Theoretical)	%30 Loss Fac. (Total Product Quantity - kg)
RS 500P (100 μ)	10.000	1600	2286
RA 500M (250 μ)	10.000	3226	4608

Table 4 shows us that application prices for 10.000 m² area in ballast tanks. During the applications, applicators have to be checked just weak rusts and cleaning of the surfaces. Also during the floating condition, surface condition of the bottom side of the tanks will be suitable for application. Humidity and wet surface factors will not affect the applications. Flexibility of the applications gain the customers time, money and easy to manage their project plans.

Table 5 shows us that the price and quantity calculations of the products for 10.000 m². **Volume solid** content is very important for coating products which we mentioned before. According to **PSPC** (Performance Standard for Protective Coatings - IMO) dry film thickness (**DFT**) of the coating has to be minimum **320 micron**. Dry film thickness is relevant with volume solid of the products and Chemco products volume solids are 100%. Means that wet film thickness and dry film thickness will be the same during and after applications. Customers will not pay their money for solvents which also make pollutions to the environment.

Table 6 – Application Plan for Sample Ballast Tank (1.000m²) With Chemco Products

Description of Application	Time	Start	Finish	Resource
No:1 Port Ballast Tank Coating Plan Chemco - RS500P & RA500M Application In Ballast Tanks (1000 m²)	186h	01 Jan 08:00	09 Jan 02:00	
Mud Cleaning	24h	01 Jan 08:00	02 Jan 08:00	Crew
Staging	24h	02 Jan 08:00	03 Jan 08:00	Crew
Hammering (For heavy rusts)	24h	03 Jan 08:00	04 Jan 08:00	Crew
Waterjetting (750 bar)	36h	03 Jan 20:00	05 Jan 08:00	Crew; Waterjet
Water transferring from the tank	48h	04 Jan 04:00	06 Jan 04:00	Crew
First Coat Application (RS 500P)	12h	06 Jan 04:00	06 Jan 16:00	Crew
Stripe Coat (RS500P)	12h	06 Jan 16:00	07 Jan 04:00	Crew
Final - Second coat (RA500M)	12h	07 Jan 04:00	07 Jan 16:00	Crew
Restaging & damaged repairs due to restaging	24h	08 Jan 00:00	09 Jan 00:00	Crew
Ballasting the Tank	2h	09 Jan 00:00	09 Jan 02:00	Master

Resources: Crew, Waterjet, ventilation.

Total Coating Period with 2 nozzle water jetting capacity (1 waterjetting blaster can make ~100 – 150 m² surface with in one shifts – 1000m² can be blasted with 4 – 5 shifts) take nearly **22 days**. Increasing of water jetting capacity can reduce the period but as much as traditional systems.

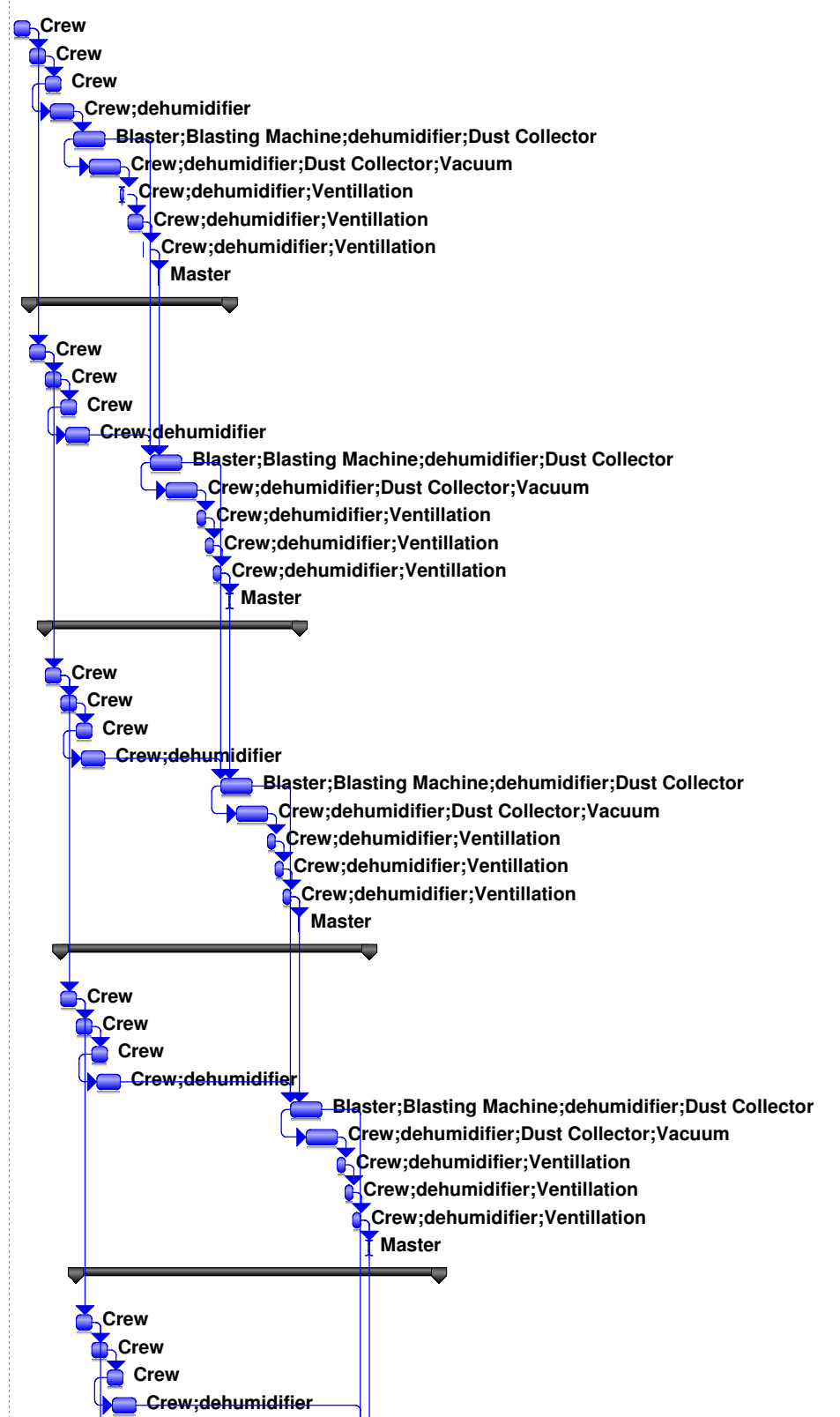
Table 6 shows us the application process on board. Mud cleaning and heavy rust chipping works are major preparations for the ballast tanks. Crew can handle that works with a three shifts (8 hours/shift) and tank will be ready for water jetting. After washing cumulated water have to be transfer from the tank then painting can start. Humidity and wet surface are not important for the applications. There will be no solvent problem for the crew and environment. There will be no grit disposal and transfers. Cumulated water can transfer one ballast tank by the vessel transfer systems as traditional coating systems. **(Attachment 2 – Chemco Side Ballast Tank Coating Plan)**

Results

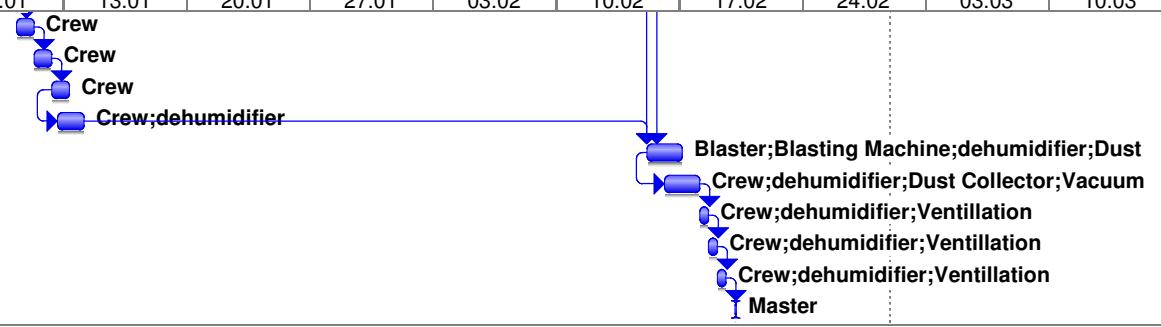
1. Unit area coating process costs of Chemco products is **(33 USD)** is less compared to Traditional Coating products **(50 USD)**. Chemco products are cheaper than the others.
2. Coating period of the Chemco products **(22 days)** are less compared to Traditional Coating products **(50 days)**.
3. Technology, innovation and quality of the Chemco products are better the Traditional Coating products.
4. **Wet and rust tolerated** products of the Chemco are **unique solution** for the ballast tanks.
5. Both products have approval for **PSPC** standards.
6. **Workmanship** of the Chemco products are **less** compared to Traditional Coating products.
7. **Equipment transportations** for Chemco products are **less** compared to Traditional Coating products.
8. Chemco products are more **environmental friendly** then the others (Solvent Free).
9. Chemco products are more **safe** then the others (**Solvent Free**).

Faruk AVCIOGLU
Naval Architect & Coating Inspector
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ID	Task Name	Duration	Start	Finish	January												March				
					16.12	23.12	30.12	06.01	13.01	20.01	27.01	03.02	10.02	17.02	24.02	03.03	10.03				
1	Traditional Coating Product Application In Double Bottom Ballast Tank (10.000 m²)	1198 hrs	01 Jan 08:00	20 Feb 06:00	[Gantt bar spanning from 01 Jan 08:00 to 20 Feb 06:00]																
2	No:1 Port Ballast Tank Traditional Coating Product Application (1.000 m²)	225 hrs	01 Jan 08:00	10 Jan 17:00	[Gantt bar spanning from 01 Jan 08:00 to 10 Jan 17:00]																
3	Mud Cleaning	24 hrs	01 Jan 08:00	02 Jan 08:00	[Task bar]																
4	Hammering (For heavy rusts)	24 hrs	02 Jan 08:00	03 Jan 08:00	[Task bar]																
5	Waterjetting (350 - 500 bar)	24 hrs	03 Jan 08:00	04 Jan 08:00	[Task bar]																
6	Water transferring from the tank	36 hrs	03 Jan 16:00	05 Jan 04:00	[Task bar]																
7	Blasting (3 nozzle)	48 hrs	05 Jan 04:00	07 Jan 04:00	[Task bar]																
8	Grid transferring	48 hrs	06 Jan 04:00	08 Jan 04:00	[Task bar]																
9	First Coat Application (Jotun, Hempel, International, Chugoku etc.)	12 hrs	08 Jan 04:00	08 Jan 16:00	[Task bar]																
10	Stripe Coat (Jotun, Hempel, International, Chugoku etc.)	23 hrs	08 Jan 16:00	09 Jan 15:00	[Task bar]																
11	Second coat (Jotun, Hempel, International, Chugoku etc.)	12 hrs	09 Jan 15:00	10 Jan 03:00	[Task bar]																
12	Ballasting the Tank	2 hrs	10 Jan 15:00	10 Jan 17:00	[Task bar]																
13	No:1 Starboard Ballast Tank Traditional Coating Product Application (1.000 m²)	310 hrs	02 Jan 08:00	15 Jan 06:00	[Gantt bar spanning from 02 Jan 08:00 to 15 Jan 06:00]																
14	Mud Cleaning	24 hrs	02 Jan 08:00	03 Jan 08:00	[Task bar]																
15	Hammering (For heavy rusts)	24 hrs	03 Jan 08:00	04 Jan 08:00	[Task bar]																
16	Waterjetting (350 - 500 bar)	24 hrs	04 Jan 08:00	05 Jan 08:00	[Task bar]																
17	Water transferring from the tank	36 hrs	04 Jan 16:00	06 Jan 04:00	[Task bar]																
18	Blasting (3 nozzle)	48 hrs	10 Jan 03:00	12 Jan 03:00	[Task bar]																
19	Grid transferring	48 hrs	11 Jan 03:00	13 Jan 03:00	[Task bar]																
20	First Coat Application (Jotun, Hempel, International, Chugoku etc.)	13 hrs	13 Jan 03:00	13 Jan 16:00	[Task bar]																
21	Stripe Coat (Jotun, Hempel, International, Chugoku etc.)	12 hrs	13 Jan 16:00	14 Jan 04:00	[Task bar]																
22	Second coat (Jotun, Hempel, International, Chugoku etc.)	12 hrs	14 Jan 04:00	14 Jan 16:00	[Task bar]																
23	Ballasting the Tank	2 hrs	15 Jan 04:00	15 Jan 06:00	[Task bar]																
24	No:2 Port Ballast Tank Traditional Coating Product Application (1.000 m²)	394 hrs	03 Jan 08:00	19 Jan 18:00	[Gantt bar spanning from 03 Jan 08:00 to 19 Jan 18:00]																
25	Mud Cleaning	24 hrs	03 Jan 08:00	04 Jan 08:00	[Task bar]																
26	Hammering (For heavy rusts)	24 hrs	04 Jan 08:00	05 Jan 08:00	[Task bar]																
27	Waterjetting (350 - 500 bar)	24 hrs	05 Jan 08:00	06 Jan 08:00	[Task bar]																
28	Water transferring from the tank	36 hrs	05 Jan 16:00	07 Jan 04:00	[Task bar]																
29	Blasting (3 nozzle)	48 hrs	14 Jan 16:00	16 Jan 16:00	[Task bar]																
30	Grid transferring	48 hrs	15 Jan 16:00	17 Jan 16:00	[Task bar]																
31	First Coat Application (Jotun, Hempel, International, Chugoku etc.)	12 hrs	17 Jan 16:00	18 Jan 04:00	[Task bar]																
32	Stripe Coat (Jotun, Hempel, International, Chugoku etc.)	12 hrs	18 Jan 04:00	18 Jan 16:00	[Task bar]																
33	Second coat (Jotun, Hempel, International, Chugoku etc.)	12 hrs	18 Jan 16:00	19 Jan 04:00	[Task bar]																
34	Ballasting the Tank	2 hrs	19 Jan 16:00	19 Jan 18:00	[Task bar]																
35	No:2 Starboard Ballast Tank Traditional Coating Product Application (1.000 m²)	478 hrs	04 Jan 08:00	24 Jan 06:00	[Gantt bar spanning from 04 Jan 08:00 to 24 Jan 06:00]																
36	Mud Cleaning	24 hrs	04 Jan 08:00	05 Jan 08:00	[Task bar]																
37	Hammering (For heavy rusts)	24 hrs	05 Jan 08:00	06 Jan 08:00	[Task bar]																
38	Waterjetting (350 - 500 bar)	24 hrs	06 Jan 08:00	07 Jan 08:00	[Task bar]																
39	Water transferring from the tank	36 hrs	06 Jan 16:00	08 Jan 04:00	[Task bar]																
40	Blasting (3 nozzle)	48 hrs	19 Jan 04:00	21 Jan 04:00	[Task bar]																
41	Grid transferring	48 hrs	20 Jan 04:00	22 Jan 04:00	[Task bar]																
42	First Coat Application (Jotun, Hempel, International, Chugoku etc.)	12 hrs	22 Jan 04:00	22 Jan 16:00	[Task bar]																
43	Stripe Coat (Jotun, Hempel, International, Chugoku etc.)	12 hrs	22 Jan 16:00	23 Jan 04:00	[Task bar]																
44	Second coat (Jotun, Hempel, International, Chugoku etc.)	12 hrs	23 Jan 04:00	23 Jan 16:00	[Task bar]																
45	Ballasting the Tank	2 hrs	24 Jan 04:00	24 Jan 06:00	[Task bar]																
46	No:3 Port Ballast Tank Traditional Coating Product Application (1.000 m²)	562 hrs	05 Jan 08:00	28 Jan 18:00	[Gantt bar spanning from 05 Jan 08:00 to 28 Jan 18:00]																
47	Mud Cleaning	24 hrs	05 Jan 08:00	06 Jan 08:00	[Task bar]																
48	Hammering (For heavy rusts)	24 hrs	06 Jan 08:00	07 Jan 08:00	[Task bar]																
49	Waterjetting (350 - 500 bar)	24 hrs	07 Jan 08:00	08 Jan 08:00	[Task bar]																
50	Water transferring from the tank	36 hrs	07 Jan 16:00	09 Jan 04:00	[Task bar]																

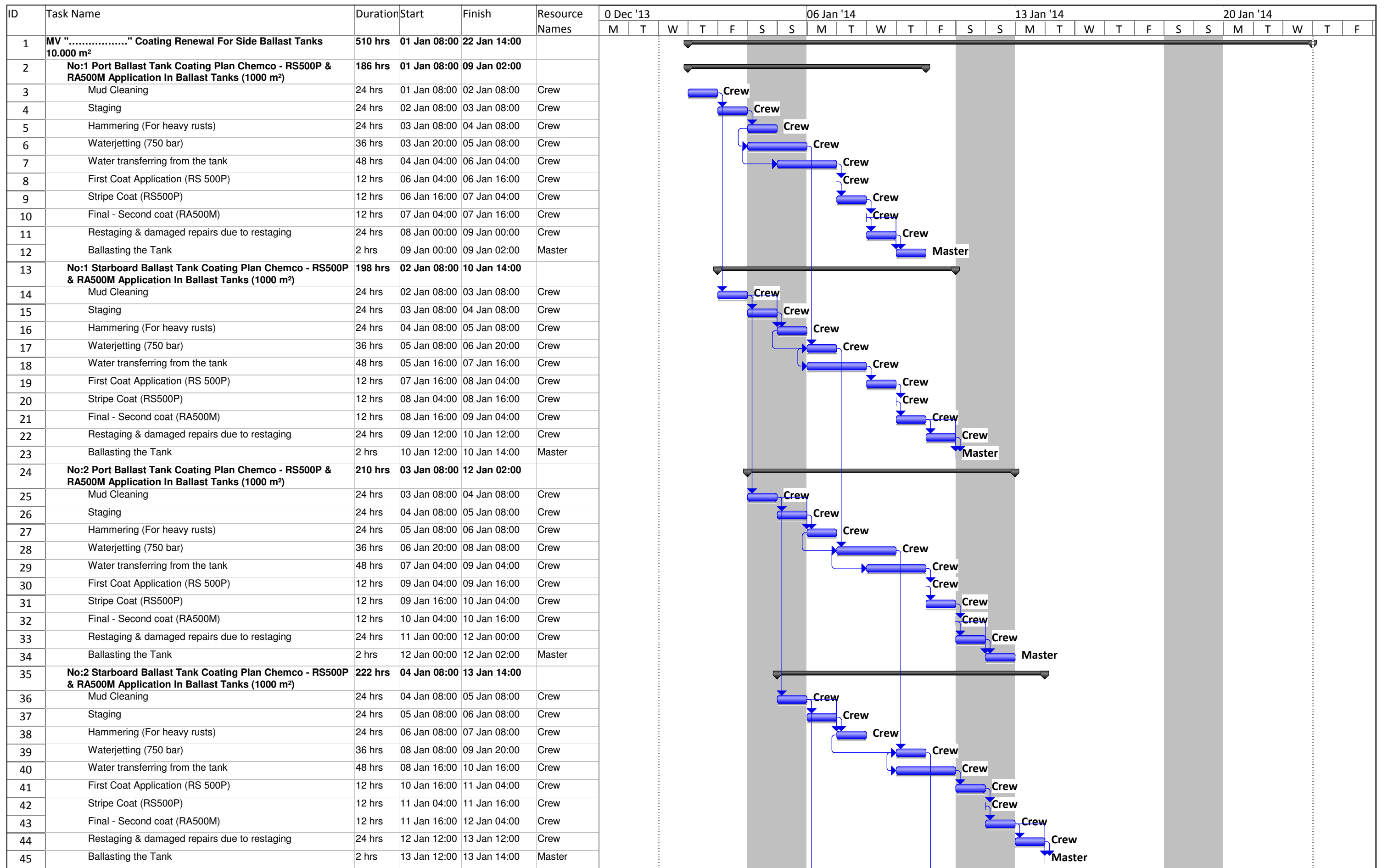


ID	Task Name	Duration	Start	Finish	January												March	
					16.12	23.12	30.12	06.01	13.01	20.01	27.01	03.02	10.02	17.02	24.02	03.03	10.03	
102	Mud Cleaning	24 hrs	10 Jan 08:00	11 Jan 08:00														
103	Hammering (For heavy rusts)	24 hrs	11 Jan 08:00	12 Jan 08:00														
104	Waterjetting (350 - 500 bar)	24 hrs	12 Jan 08:00	13 Jan 08:00														
105	Water transferring from the tank	36 hrs	12 Jan 16:00	14 Jan 04:00														
106	Blasting (3 nozzle)	48 hrs	15 Feb 04:00	17 Feb 04:00														
107	Grid transferring	48 hrs	16 Feb 04:00	18 Feb 04:00														
108	First Coat Application (Jotun, Hempel, International, Chugoku etc.)	12 hrs	18 Feb 04:00	18 Feb 16:00														
109	Stripe Coat (Jotun, Hempel, International, Chugoku etc.)	12 hrs	18 Feb 16:00	19 Feb 04:00														
110	Second coat (Jotun, Hempel, International, Chugoku etc.)	12 hrs	19 Feb 04:00	19 Feb 16:00														
111	Ballasting the Tank	2 hrs	20 Feb 04:00	20 Feb 06:00														



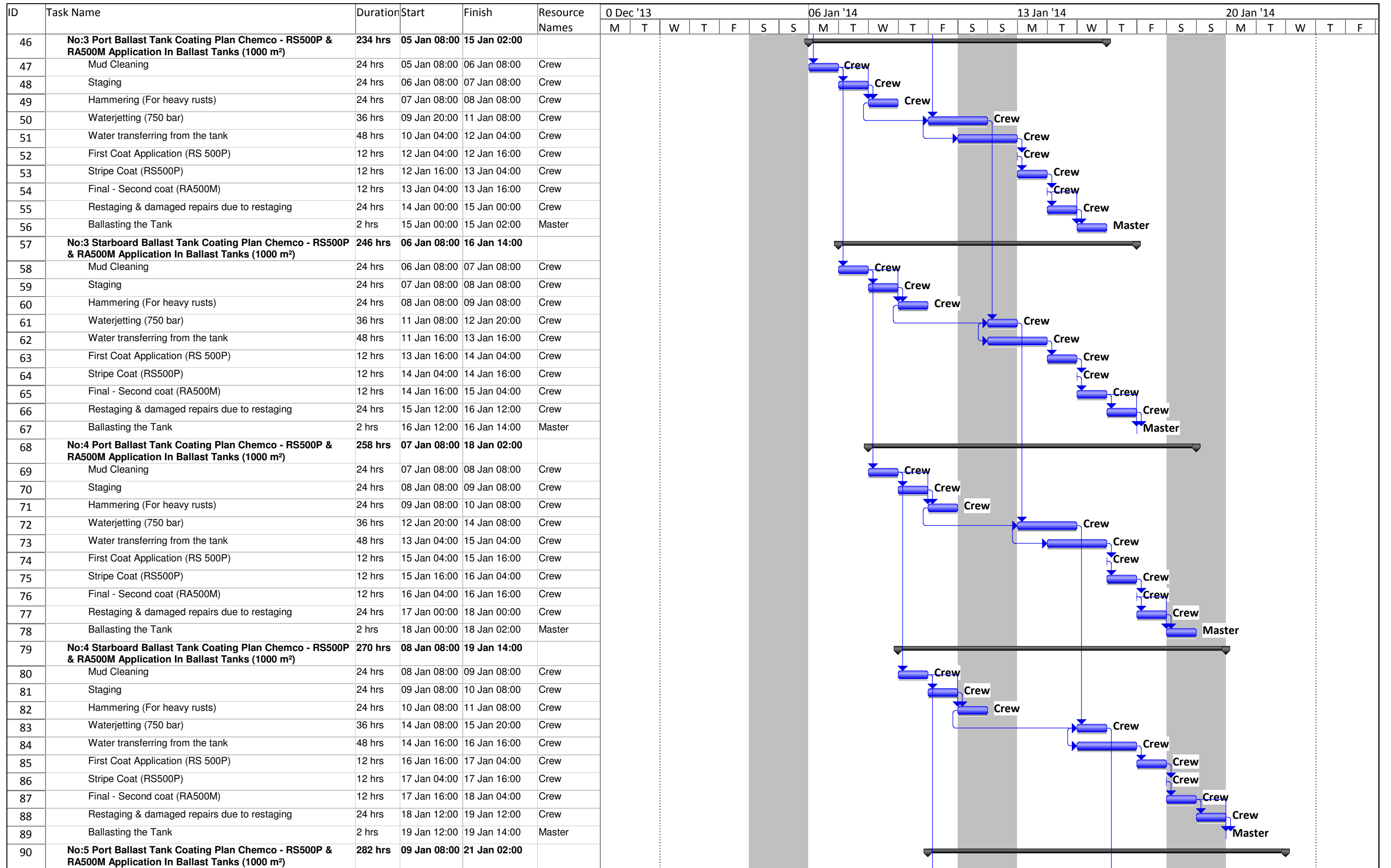
Project: Traditional Products Plan
Date: 21 Sep 19:01

Task Milestone Project Summary External Milestone Deadline
 Split Summary External Tasks Progress



Project: msproj11
Date: 21 Sep 18:35

Task		Milestone		Project Summary		External Milestone		Progress	
Split		Summary		External Tasks		Deadline			



Project: msproj11 Date: 21 Sep 18:35	Task	Milestone	Project Summary	External Milestone	Progress
	Split	Summary	External Tasks	Deadline	

