Working Capital Management
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Lecture - 15
Working Capital Requirement –The Conclusion

Welcome students. So let us move to the next level that is doing the problem number 5 out of the total problems 5 here as I told you earlier that problem 3 and 4 you will try yourself and then keep in touch with me through mail or thorough this discussion forum when the course will run. So in this problem as I told you in the previous class that we will have to prepare 3 statements.

One is the working capital requirement assessment, the assessment of the working capital requirements for this company that is Dwell Max and profit and loss account, estimated profit and loss account and then the forecasted balance sheet. So now let us move to the first part that is the preparation of your working capital statement for this company. So this is not on the cash cost basis or something like that.

This is the normal statement and here we will have to assess first the level of current assets then the level of current liabilities and then the net working capital, prepare the profit and loss account and then the balance sheet. So we will prepare now the statement of working capital requirements.

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Statement of Working Capital Requirements

Estimation of CAs

1. Raw Material $(1,80000 \times 2/12)$ = Rs 30000
2. W.I.P stage = Rs. 18750

WIP

R.M = 15000 ①

Wages = $\frac{30000}{12} = \frac{2500}{2} = 1250$ ②

Oh. $\frac{60000}{12} = \frac{5000}{2} = 2500$ ③

16,750

So it is statement of working capital requirements, statement of working capital requirements and as we are doing in the past 2 problems we have been doing, first thing is the say current assets. Assessment of or the say estimation of current assets, estimation of current assets and while estimating the current assets you will have to see here first current assets we are going to have is the raw material. First current asset is the raw material and this raw material is how much?

It is given in the problem is that total production is going to be how much? That we will have to find out here. The total production the company is going to have in this period is that is production during the year, point number 4, production during 2017 was 60,000 units and what is the say cost of selling price of 1 unit is 5, Rs. 5. So it means total is the 3 lakh rupees. The total production we have gone is for worth Rs. 3 lakhs.

And out of this 3 lakhs, the percentage of raw material is 60%, labour is 10%, overheads are 20%. So this works out as how much this is 60, 70, and 80 or 90. So 60, 70, and 90. 90% is the cost. Out of 3 lakhs 90% means 270,000 is the cost and remaining 30,000 is the profit. So we are given the ratios. So we will have to find out here out of 3 lakh rupees of the sales we will have to see that what is the material cost. We know that 60% of 3 lakhs is the 180,000.

So we will take here as the raw material cost is how much? This is going to be something like say this is the how much 180,000. This is the cost total. Cost for the whole of the year and for how much time it remains in the form of raw material? It is given to us raw material is expected to remain in store on an average for a period of how much time, 2 months before these are issued for production. So it means for a period of 2 months it is remaining in the store. So it means 180 multiplied by 2/12. So this is how much? This works out as rupees. Say total amount is going to be 30,000. So raw material investment is how much 30,000 worth of rupees we are going to make here.

That is 30,000 rupees worth of investment we are going to make here. Then we will go to the next stage that work in progress stage and for that we will have to calculate the amount of work in progress first. I have calculated here the amount of work in progress which is say something like total amount which we are going to have here investment in the work in progress here that we have to see that how much time the it is written here.

It is given to us is that raw material expected to remain in store on an average for a period of 2 months and each unit of production is expected to be in process for 1 month right. so we have to see that each unit is in process for 1 month. So we will have to calculate now the WIP cost. So if you see the WIP work in process we have calculated it as say 18,750 this investment is at the work in process stage.

The investment we have worked out here is that is 18,000 Rs directly that we have calculated here is that is this investment we have calculated here is that is 30,000 that is in the raw material. Work in process we have calculated here is Rs. 18,750. How this 18,750 has been worked out. You can see find out that we have to take the 50% of your manufacturing expenses. So it means say let us calculate here and then I will rub it off WIP for example.

For calculating the WIP we have to take the raw material and stages 1 month. So it means raw material is total raw material is how much we have to take here is that is total material cost is 180,000 and for a period of 1 month the cost works out as 15,000. So this is the raw material cost. Then we have the next head we have to add up here is wages. So wages are how much? Wages of total are 30,000 and it remains in process.

We have to take the half of this because at the WIP stage we take half. So we are going to take it as 15,000. Total we are going to take this as 15,000 and 15,000 is going to remain in this store. So if you multiply this total amount this works out as divided by 12. So this works out as how much 1250. So and third is overheads. Overheads are going to be how much? Overhead cost is going to be 60,000 and period is how much is 12.

So this is divided by 12 this works out as how much 5000. So this is 5000 we have taken 5000. We have to take half of this. This is 2500. Similarly, you can take this as divide by 12. In this case you can take the this component also you can take it like say 30,000 divided by 12. So this will be how much? This will look like this will be somewhere 2500 and we have to take the half of it so it is 1250. So what you have to take is this is 1, this is 2, and this is 3.

So these are the 3 costs. So this works out as how much? 16250 and this is 18750. So this works out as 18750 is the WIP cost. This is how we have calculated the WIP cost. So it means we will have to take this amount that investment in the work in process here is that is 18,750. Now we go for the next stage that is the investment in the finished goods.

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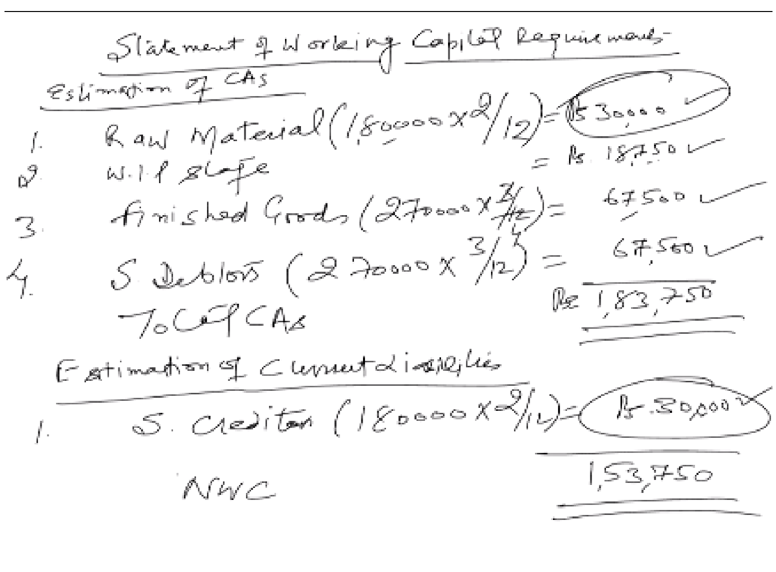

So for calculating the investment in the finished goods, finished goods and for the finished goods stage how much investment we are going to make here? Total cost was how much? Finished goods we have take it at the cost price. So we have seen that how much was the total sales are of 3 lakh rupees, 300,000 total sales and 90% is the say cost of production. So finished goods will be taken as 90% of 3 lakhs that will work out as how much? That is 270,000.

This is 270,000 and something we will have to calculate here. So for calculating that the actual for how much time finished goods remain as finished goods? We will have to see that and finished goods are here, ratio of this. Finished goods will stay in the warehouse for about 3 months. Finished goods will stay in the warehouse for a period of 3 months so you can say multiply it by 3/12. So this will be 1/4. So this will be how much?

If you see the investment in the finished goods this will work out as 67,500 rupees worth of the investment you have to make in the finished goods. Fourth is now the sundry debtors. So sundry debtors was given here as creditors allow the credit for 2 months and credit allowed to the debtors is 3 months from the date of dispatch. It means 3 months we are giving the credit period to the debtors also. So it means sundry debtors stage, sundry debtors stage is again 270.

We will take sundry debtors here while calculating the investment part is at the cost. So this will be how much? Again 3/12. So this will work out as the same amount 67,500. 67,500 is the final amount here we are calculating. So I think these are the total 4 current assets we are going to build. These are requirement of the firm, raw material requirement is say 30,000. WIP requirement is say 18,750.

Finished goods requirement, investment requirement is 67,500 and sundry debtors investment requirement is 67,500. So this is the total current assets, total current assets is going to be the total requirement which is how much if you calculate this sum it up it will work out as 183,750 Rs. 183,750 Rs worth of the current assets are to be built up. Now let us estimate the current liabilities, current liabilities.

We have to now calculate the current liabilities, the total level of the current liabilities. How much funds will be available from the current liabilities. So we will have to take the total current liabilities. Estimation of the total current liabilities will be how much? So that is the now the next thing we are going to do here. So it means total current assets minus total current liabilities we will be taking. So estimation of it is better to write like this.

Estimation of current liabilities, estimation of the current liabilities is going to be how much? It is written here that say if you look at the problem, creditors allow credit for a period of 2 months from the date of delivery of raw materials. So it means sundry creditors. First is the sundry creditors, sundry creditors. How much credit will they be providing? They will be providing the for the period of 3 months.

So it means how much total purchase of the raw material we are making. 18000 and the credit is available for a period of how much 3 months. For a period of they will be not requiring the funds for a period of less than 2 months or 3 months. Let us check. Creditors credit allowed. Creditors allow the credit for 2 months, not 3 months but 2 months. So 2 months is 2/12. So this amount is Rs. 30000.

So it means this much of the funds will be available from the current liabilities that is the sundry creditors and no other you can say the other credit is available to us in this case if you look at raw material, then each of production, finished goods, creditors nothing is there. So it means only the credit available is from the sundry creditors and that is 30,000 worth of rupees. So it means now you can see that the what is the net working capital NWC.

We will see the net working capital and this is 1,53,750. This is the net working capital requirement of the firm which is very simple to calculate that these are the 4 current assets required to be built up. Total investment requirements are 183,750 and then we look at the current liabilities. So this much of the funds are going to be available from the spontaneous finance that is the current liabilities sundry creditors 30,000.

It means at least there is nothing to worry about this this raw material. This raw material we are going to get on the credit. Say same is the amount of the raw material. So raw material part we are not going to worry about that from where this investment will come. We will have to worry about the investment of this 18,750; 67,500 and again the 67,500 of the remaining 3 heads. One head is we are going to have from the sundry creditors.

And this investment is coming from the spontaneous finance. So total working capital requirement of this company is 1,53,750 right, clear, simple, good. So now we will move to the next requirement and that next requirement was preparation of the profit and loss account. So we will prepare now the profit and loss account, profit and loss account. I assume that you know the financial accounting and you know the format of the profit and loss account which is something like this. It is the T form of the profit and loss account.

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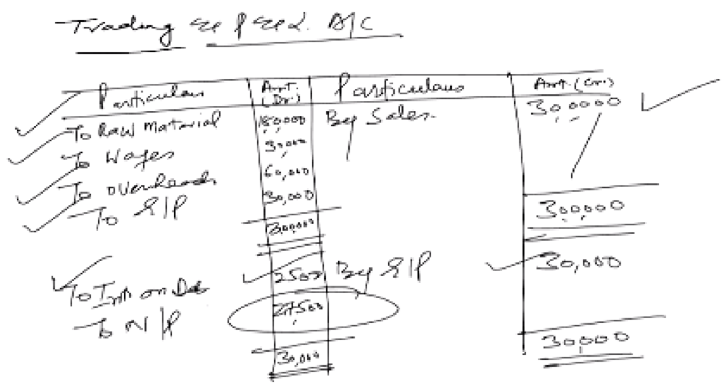

And in this we will prepare the profit and loss account here. This is the debit side, this is the credit side and here we write particulars. Here it is amount. This is the debit side. Here it is particulars. Here it is amount and this is the credit side right, two sides. First we prepare, the upper part is called as a trading account. Lower part is called as the profit and loss account. So let us prepare the trading account now which we take only the 3 direct expenses.

That is material, labour, and other overheads. And then we take the sales on the credit side and the difference between the sales and these 3 expenses is called as the gross profit. So let us start with the first two 3 items. What is the raw material, to raw material. To raw material. How much is the raw material cost. It is 1,80,000 is the raw material cost. To wages. How much is required on account of wages?

The wages requirement is or the labour requirement is how much 30,000 right. This is 30,000. Then we have other head of expenses to overheads. Overheads are how much. If you look at the overheads they are 60,000 right. Then we take here as sales by sales. How much is the sales amount? It is 3,00,000 lakhs nothing else. So this is the total income we are going to have. This is direct income 3 lakh sales and this is 3 lakhs sales. This difference is gross profit.

How much is the gross profit now to GP. We call it as gross profit. So how much is the gross profit here? If you calculate the gross profit here this works out as 30,000. This is 30,000, 3 lakhs. So this is 180, then 210, 270. 270,000 is the cost. 3 lakhs or 300,000 is the income from the sales. So the difference is the gross profit that is called as gross profit 30,000 Rs. Now here we take it as by gross profit.

This is 30,000 will come here and now what is the indirect expenses. Here we have to take now the indirect expenses and if you look at the problem the indirect expense is I think only one. 5% debentures which are bonds and the amount is Rs.50,000. So 5% means it is the rate of interest. So you have to calculate now the 5% debentures. The rate of interest is 5%. So 5% of 50,000 is going to be how much? To interest on debentures is 2500 right.

So there is no other income, source of income it means this side is 30,000 closed. This is again 30,000 and account is balanced. So it is the to net profit which is 27,500. So this is the profit and loss account. We have prepared by calculating the sales value. By calculating the raw material cost, wages cost, overheads cost, wages or the labour cost, overhead cost. Then we calculated the GP first and then we are given the debentures. We have calculated the interest on that.

So it means against 30,000 of gross profit we have calculated the interest expense. This is 2500 and it means the net profit we have calculated here is that is 27,500. So this is the second requirement we have fulfilled. Now next go to the third requirement and that is the balance sheet. Let us prepare the balance sheet for this company.

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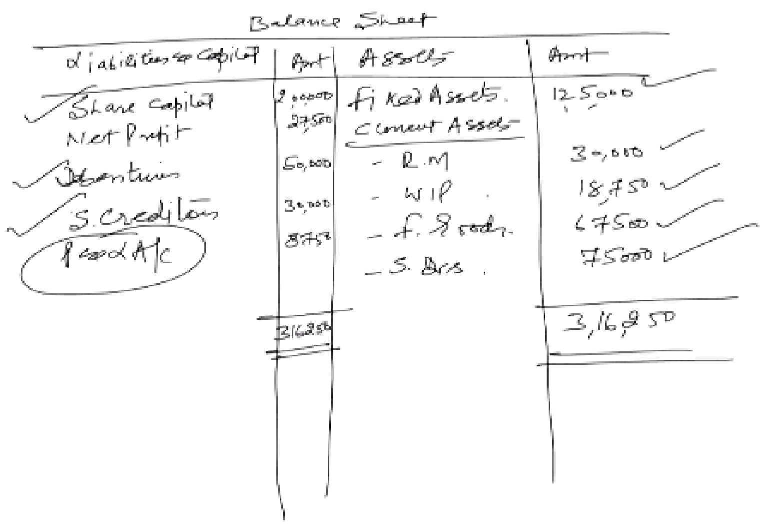

Same format, T format. So in this format we will be taking say balance sheet. This is the we are going to have now the balance sheet sorry. This is the balance sheet of next this Dwell Max Company. So balance sheet we have to take here. This is the liabilities and capital and capital here it is assets and it is here amount here. It is the amount here. No debit, no credit. No to no buy. Straightaway we have take all the assets, liabilities, and capital and balance both the sides.

Let us start with the say liabilities and capital side. So what is the capital given to you here is issued and paid up capital is 200,000 right. So we will take here as share capital, share capital this amount is how much. We can directly take to the outer column. If you take to the outer column this statement or this amount of the balance sheet we can take to the outer column. So this is 2 lakh Rs. 200,000 is the share capital right.

Then we take net profit. Net profit which we earned just now in the profit and loss account we have calculated. That amount was how much 27,500. I will just widen the column here so you can widen the column here so if you take this column this is going to be the bigger column for us. So this is going to be the say balance sheet now. So we are going to have 2 lakhs. So it means the share capital is 2 lakhs. Net profit is 27,500.

Then we have next thing is the debentures. Debentures are for how much 50,000. These are the debentures here we have taken for the 50,000. Anything else, yes sundry creditors. We are now going to have after this capital and long term liabilities we are going to take the now the current liabilities sundry creditors. We have calculated the sundry creditors and the level of sundry creditors is something like this. We have to take the level of sundry creditors.

So in this case how much is the amount of sundry creditors? We have calculated the amount of sundry creditors as 30,000. Suppliers credit 30,000 we have calculated from the working capital statement. So this is the figure. So we have taken 2 lakhs as share capital; 27,500 as the profit, net profit. Then we have taken debentures as given to us. Then we have calculated the sundry creditors 30,000.

Then see if there is anything is any other item is there or not but first let us move to the asset side. If you move to the asset side we will take the fixed assets first. We take the fixed assets and we are given the fixed assets here. How much is the fixed assets given to us. Fixed asset given to us are here like say 125,000. 125,000 worth of rupees fixed assets are given to us. Others are current assets. So current assets are like say we say current assets.

We have calculated from the working capital statement current assets are how much? First is raw material. What is the raw material figure we have already calculated is 30,000. Then we have the other current asset is finished goods. Finished goods, that is 67,500. Then we have sorry we have the work in process also. So work in process should come first. So work in process should come first before finished goods we have to take the work in process.

So we will take the work in process here. So work in process is WIP is how much? 18,750 we have already calculated. This is the work in process and then the finished goods. Finished goods we had calculated here is 67,500. Finished goods are 67,500 and last current asset is the sundry debtors. Like sundry creditors we have sundry debtors. So it means the sundry debtors are sundry debtors here we have. How much is the level of sundry debtors?

If you calculate the sundry debtors total amount of the sundry debtors is with us that is 67,500 or it has to be something else it is 75,000. 67,500 or 75,000. We have to take here the 75,000. I will just tell you that why we have taken 75,000 here and I think there is no other asset available so if you take this and total it up this side I think seems to be bigger than this side. Let us total this side so this works out as how much? 3,16,250. This is the total of the asset side.

And if you look at this side is how much 200,000; 27,000; 227,000 then 277,000. This side is shorter than this side. So it means let us put this balance here 3,16,250. Out balance sheet is this side. But now this side is shorter. So if the asset side is more than the current say liability side, so what is the balance called as, as the profit and loss account. Profit and loss account. This is the profit and loss account.

That is excess of current asset over current liabilities and this amount will come out as 8750. This amount will work out as 8750. So if you look at this side now and look at this side now so this difference is 8750 we have calculated. Just we see this is the balance because of the asset side being more than the liability side by this amount 8750. So now this side is equal to 3,16,250. This side is already 3,16,250.

So we have been able to balance the balance sheet and you see say other than share capital and debentures and fixed assets most of the other items have come from the working capital statement. Your raw material has come from the working capital statement. Your WIP has come from the working capital statement. Your finished goods have come from the working capital statement and similarly, your sundry debtors have also come from the sundry debtors sorry working capital statement.

Your sundry creditors have come from the working capital statement. So if you are not preparing the working capital statement I think we would not be able to prepare the profit and loss account and balance sheet. Profit has come from the profit and loss account here. So we will not be able to prepare because we would not be knowing the level of current assets. How much current assets we are going to build over this period of 1 year.

How much raw material we will have. How much WIP we will have. How much finished goods we will have. How much sundry debtors we will have. We would not have this level of the current assets with us. So in this case we are able to have it from the working capital statement and sundry creditors also we are going to have from the working capital statement. So if you are seeing here this balance sheet or maybe the profit and loss account in the previous sheet here most of the items have come from the working capital statement.

In the balance sheet also most of the items have come from the working capital statement and we are able to tell you the balance sheet also. We are able to prepare the profit and loss account and we are already we have prepared the working capital requirements statement. So we are able to find out that the working capital requirement of this company is how much that is 1,53,750 and the profit they will be earning will be to the tune of 27,500.

This is the profit before tax and for example if the tax rate is 0 in that case entire tax profit if no dividend is also paid, no tax is due on that entire profit if it is transferred to the balance sheet then this balance sheet will look like that the balance of the balance sheet will be 3,162,50. Here also 3,16,250 and the positive part of this balance sheet is that the assets side is more by 8750 and that we have put this balance on the liability side to make both the sides are equal.

So this is the superior balance say very healthy balance sheet and the firm's overall financial position is very good. Here now I will discuss just for a 30 seconds this point that is 75. If you look at the sundry debtors I have taken here at 75,000 but if you look at the working capital statement there we have taken it at that 67,500. So why the difference in these 2 figures is there?

See in the working capital statement we are calculating the investment to be made. We are not taking into account the profit right? Whereas both the rules of thumb or both the rules are possible. Some people say that in the working capital also we should calculate it on the selling price basis, not on the cost basis. Or some people say that it should be on the cost basis because we are only going to calculate the investment we are going to make here.

We are not going to say talk about the profits. So either way is good. But normally it is better to take as the at the investment level at the cost. So we have taken in this working capital statement at cost. So the cost of the sundry debtors is 67,500. But in the balance sheet it has to be taken at the selling price so in the balance sheet I have taken at the selling price because sundry debtors in the balance sheet are always shown with the profit.

Because we are not going to recover the investment from the credit buyers or buyers on credit. We are going to recover the cost that is 67,500 plus profit on that. So total amount which we have to lent out is not the investment only. We have lent out the profit also. So that is why in the balance sheet we take sundry debtors as 75,000 but in the working capital statement it is always advisable that rather than inflating your investment requirements factitiously it is better always to take it on the cost.

So that is why I have taken it at the cost and here I have taken it at the selling price and finally we are able to prepare the working capital statement also, profit and loss account also and the balance sheet also for this company called as Dwell Max Limited and finally the balance sheet is balanced and we are seeing here that balance sheet is not balanced but the assets are more that the liabilities.

So it is a very healthy balance sheet which depicts a very good very healthy financial position of this company. So this is how we assess the working capital requirements of the different company and we have to assess both the current assets and current liabilities and then we see the difference and that is the net working capital requirement. So it means the requirement which is not going to be fulfilled from the spontaneous and short term finance that will be fulfilled from the long term sources of the funds.

So at this level we have learnt is that how to assess the working capital requirements of the company provided we are given the total financial information, total financial information as well as the duration of the operating cycle or different stages of the operating cycle. So I will stop here and next time or in the next class we will start the next topic. Thank you very much.