Ampoule Printing Project

Bank financing and self-funded expansion summary

PKR 52.23m	PKR 35.00m	PKR 17.23m	PKR 0.814m
Initial project cost	Bank financing	Sponsor equity	Monthly instalment

Project and financing structure

The client supplies unprinted ampoules. The company prints and delivers them for PKR 0.55 per accepted ampoule. Phase 1 starts with five machines and 350 kWp of solar. The PKR 52.23 million initial project cost is funded by PKR 35.00 million bank debt and PKR 17.23 million sponsor equity. The loan carries 14% annual interest and is repaid through 60 equal monthly instalments.

Financing metric	Value
Bank share of initial cost	67.0%
Sponsor equity share	33.0%
Loan term	60 months
Monthly instalment	PKR 0.81m
Total five-year interest	PKR 13.86m
Sponsor-equity payback	Month 20

Monthly operating metric	Five machines	Ten machines
Processed output	15.00m	30.00m
Billable output after 1% rejection	14.85m	29.70m
Revenue	PKR 8.17m	PKR 16.34m
Operating costs	PKR 5.42m	PKR 10.02m
Operating cash before debt	PKR 2.75m	PKR 6.32m
Cash after loan instalment	PKR 1.94m	PKR 5.50m
Debt-service coverage	3.38x	7.75x

Self-funded expansion

Month	Machines	Added investment	Cash after purchase	Required reserve
11	6	PKR 10.45m	PKR 8.94m	PKR 7.13m
15	7	PKR 10.45m	PKR 9.16m	PKR 8.08m
19	8	PKR 10.45m	PKR 12.13m	PKR 8.98m
22	9	PKR 10.45m	PKR 13.93m	PKR 9.89m
24	10	PKR 10.45m	PKR 13.11m	PKR 10.83m

Conclusion

The operating cash flow can fund all five machine-and-solar additions in Months 11, 15, 19, 22, 24. The company retains at least one month of post-expansion operating expenses and loan instalment after every purchase. No additional sponsor funding is required under the modeled collection terms. The bank loan is fully repaid in Month 60, with total interest of PKR 13.86m.

Model boundary: customer receipts are collected within the modeled month. Delivery, maintenance, administration, tax, financing fees and the purchase value of rejected client ampoules are excluded. The 1% rejection is modeled as non-billable output while ink is charged on all processed ampoules.