Watson Leisure Time Sporting Goods has improved operations over time and the company needs to make a decision related to an equipment decision .

The company plans to purchase a new piece of equipment (to be used over a six year period) for $320,000.

Assume the cash flows and depreciation (based upon the use of the 5-year MACRS Schedule and Table 12-9) for the new equipment is as follows:

|  |  |  |
| --- | --- | --- |
|  | **Cash Flow** | **Depreciation** |
| 1 | $120,000 | $64,000 |
| 2 | 105,000 | 102,400 |
| 3 | 80,000 | 61,440 |
| 4 | 65,000 | 36,800 |
| 5 | 53,000 | 36,800 |
| 6 | 45,000 | 18,560 |

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
|  | **1** | **2** | **3** | **4** | **5** | **6** |
| EBDT |  |  |  |  |  |  |
| – D |  |  |  |  |  |  |
| EBT |  |  |  |  |  |  |
| T (36%) |  |  |  |  |  |  |
| EAT |  |  |  |  |  |  |
| + D |  |  |  |  |  |  |
| Cash Flow |  |  |  |  |  |  |

The firm has a 36 percent tax rate. Assuming depreciation is the only expense and based upon the cost of capital of 10%, calculate the net present value (NPV). Should the new equipment be purchased?

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Net Present Value** | | | | | |
|  | **Year** | **Cash Flow (inflows)** | **PVIF at 10%** | | **Present Value** | |
|  | 1 |  |  | |  | |
|  | 2 |  |  | |  | |
|  | 3 |  |  | |  | |
|  | 4 |  |  | |  | |
|  | 5 |  |  | |  | |
|  | 6 |  |  | |  | |
|  |  | Present value of inflows | | |  | |
|  |  | Present value of outflows | |  | | |
|  |  | Net present value | | |  | |