

IAS 16:

Property, Plant and Equipment

Recognition of company's investment in tangible long-term assets and how those assets change over time in Compliance with IAS 16

October 2026

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Recognition of Property, Plant and Equipment

The cost of an item of Property, Plant and Equipment shall be recognized as an ASSET if, and only if:

(A) Probable Future Economic Benefits

it is probable that future economic benefits associated with the item will flow to the entity

(B) Reliable Measurement of Cost

The acquisition or construction cost of the asset can be measured reliably

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Recognition of Property, Plant and Equipment

Probable Future Economic Benefits:
Sales Revenue; or
helps reduce costs
maintain production capacity
improve operational performance
or meet essential safety and environmental requirements

Future economic benefits do not necessarily mean probable or increased revenue only

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Key Recognition Principles

Assets and it’s Spare Parts
PPE comprises tangible assets held for production, supply of goods or services, rental or administration and **expected to be used for more than one reporting period**.
Recognition applies to purchased as well as self-constructed assets
Significant spare parts, standby equipment and servicing equipment qualify as PPE when they meet the PPE definition.
Major or Significant replacements and qualifying inspections **may be capitalised**, with the carrying amount of the replaced component subject to Recognition Criteria (PFC)
Routine repairs and day-to-day servicing costs are generally expensed.

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Measurement of Cost of PPE

Initial Costs
Purchase Price: Including import duties and non-refundable taxes, after deducting trade discounts and rebates.
any costs directly attributable to bringing the asset to the location and condition necessary for it to be capable of operating in the manner intended by management.
Dismantling and Restoration Costs: Initial estimates of obligations to dismantle, remove and restore the site, where applicable (at present value)

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Directly Attributable Costs

Examples of directly attributable costs are:
costs of employee benefits (as defined in IAS 19 Employee Benefits) arising directly from the construction or acquisition of the item of property, plant and equipment.
costs of site preparation
initial delivery and handling costs
installation and assembly costs
costs of testing whether the asset is functioning properly,
professional fees

Key principle: Capitalisation ceases when the asset is in the location and condition necessary to operate as intended by management, even if commercial production has not commenced.

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Cost Measurement of a Pipe Production Line

Assume a steel pipe manufacturer purchases and installs a new pipe forming and welding line.

Cost component	Amount (AED)	Treatment
Machinery purchase price	5,000,000	Capitalise
Import duties	250,000	Capitalise
Freight and transportation	100,000	Capitalise
Installation and assembly	300,000	Capitalise
Machinery testing	150,000	Capitalise
Initial restoration obligation (present value)	100,000	Capitalise
Total PPE cost	**5,900,000**	**Recognise as PPE**
Employee training	75,000	Expense
Initial operating losses	125,000	Expense

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Subsequent Costs (1)
- day-to-day servicing including minor replacements

does not recognise in

the carrying amount of an item of property, plant and equipment **the costs of the day-to-day servicing of the item**

Costs of day-to-day servicing are primarily the costs of labour and consumables, and may include the cost of small parts

these expenditures is often described as **'repairs and maintenance'** of the item of PPE and is expensed in the P&L when cost is incurred

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Subsequent Costs (2)
- major replacements

- Parts of some items of PPE may require replacement at regular intervals
- For example, a furnace may require relining after a specified number of hours of use, or aircraft engine, interiors such as seats and galleys
  may require replacement several times during the life of the airframe.
- Items of PPE may also be acquired to make a less frequently recurring replacement such as replacing the Interiors or critical machinery part etc.
- Para 7, an entity recognises in the carrying amount of an item of PPE the cost of replacing part of such an item when that significant cost is incurred if the recognition criteria are met. The carrying amount of those parts that are replaced is derecognised
- When each major inspection is performed, its cost is recognised in the carrying amount of the item of PPE as a replacement if the recognition criteria are satisfied

All such major replacements
Capitalized in the carrying amount of the PPE (and derecognize the replaced parts carrying amount).

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Cost Recognition

Asset category - Recognise as PPE
Pipe forming and welding machinery
Cutting, coating and finishing equipment
Factory buildings and owned production facilities
Significant standby production equipment
Qualifying machinery installation and commissioning
Significant replacement of production-line components

Not under PPE but Recognize as Expense

Routine lubrication and maintenance

Not under Initially PPE but Recognize as IAS 02 Inventories then Expensed or PPE

Steel coils, raw materials and routine spare parts or major machinery parts

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Item of PPE Recognition:
Case 1 — Major Parts Replacements

Under IAS 16 – Property, Plant and Equipment, the replacement of a significant component of manufacturing machinery is recognised as part of PPE when the recognition criteria are satisfied.

The carrying amount of the component being replaced must be derecognised, even when the original component was not separately depreciated.

The company must assess significant component replacements separately, recognise qualifying replacement costs as PPE, derecognise replaced components and depreciate the new components over their respective useful lives.

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Item of PPE Recognition:
Case 1 — Major Parts Replacements

A steel pipe manufacturing company operates a pipe forming mill. After five years, the company replaces a significant roller assembly due to wear.

Particulars	Amount (AED)
Original cost of roller assembly	400,000
Accumulated depreciation	(350,000)
Carrying amount of old assembly	50,000
Cost of new roller assembly	450,000

Accounting treatment

Step 1 – Derecognise the old roller assembly

- Remove original cost: AED 400,000
- Remove accumulated depreciation: AED 350,000
- Recognise loss on derecognition: AED 50,000 (assuming no disposal proceeds)

Step 2 – Capitalise the new roller assembly

- Recognise new PPE component: AED 450,000
- Depreciate over its estimated useful life.

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Item of PPE Recognition:

Case 2 — Main Machinery Vs Major Parts Replacements

1. Scenario – Initial Purchase of Machinery

A steel pipe manufacturing company purchases a Pipe Forming and Welding Machine for AED 3,000,000 on 1 January 2026.

The machinery is capitalised under IAS 16 – Property, Plant and Equipment.

Particulars	Details
Machinery	Pipe Forming and Welding Machine
Date of acquisition	1 January 2026
Original cost	AED 3,000,000
Estimated useful life	15 years
Residual value	Nil
Depreciation method	Straight-line
Annual depreciation	AED 200,000

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Item of PPE Recognition:

Case 2 — Main Machinery Vs Major Parts Replacements

2. Major Part Replacement After 10 Years

On 1 January 2036, the company replaces the high-frequency welding assembly, an integral component of the manufacturing machinery.

Particulars	Amount / Details
New welding assembly cost	AED 700,000
Estimated useful life of new assembly	7 years
Remaining life of original machinery	5 years
Original cost attributable to old assembly	AED 600,000
Old assembly's original estimated useful life	15 years
Accumulated depreciation on old assembly (40,000 x 10 years)	AED 400,000
Carrying amount of replaced assembly	AED 200,000

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Item of PPE Recognition:
Case 2 — Main Machinery Vs Major Parts Replacements

What if the Original Cost of the Replaced Component Is Unknown?

IAS 16 permits the company to estimate the cost of the replaced component when its original cost cannot be identified.

Under IAS 16, paragraph 70, if it is not practicable to determine the carrying amount of a replaced part, the entity may use the cost of the replacement as an indication of what the replaced part cost when it was originally acquired or constructed. (for this can apply present value factor to cost of new replacement part to arrive cost of old replaced item)

This is particularly relevant to steel pipe manufacturing companies where machinery was originally purchased as a complete production line without a separate cost breakdown for components.

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Item of PPE Recognition:
Case 2 — Main Machinery Vs Major Parts Replacements

For this example, assume the original welding assembly was included within the AED 3 million machinery cost and was not separately depreciated. Its original cost is reliably identifiable. The new assembly qualifies for capitalisation under IAS 16, and the old assembly is scrapped with no disposal proceeds.

Carrying Amount After Replacement
As at 1 January 2036:

Particulars	Amount (AED)
Carrying amount of original machinery after 10 years	1,000,000
Less: Carrying amount of replaced welding assembly	(200,000)
Remaining carrying amount of original machinery	800,000
Add: Cost of new welding assembly	700,000
Revised total PPE carrying amount	**1,500,000**

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Depreciation After Replacement

An important question arises: Can the replacement component be depreciated over seven years when the original machine has only five years of remaining useful life?

Under IAS 16, the answer depends on the expected period of use.
For this example, assume the remaining machine structure will be retired after five years, but the new welding assembly can be removed and used on another compatible production line for a further two years.

Component	Carrying amount (AED)	Remaining useful life	Annual depreciation (AED)
Remaining original machinery	800,000	5 years	160,000
New welding assembly	700,000	7 years	100,000
Total	1,500,000		260,000

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Depreciation After Replacement

If the new welding assembly cannot be used independently or transferred to another production line, and the company expects to retire the complete machine after five years, the component's useful life would ordinarily be limited to those five years.

In that alternative scenario:

Component	Annual depreciation (AED)
Remaining original machinery	160,000
New assembly: AED 700,000 ÷ 5 years	140,000
Total annual depreciation	300,000

IAS 16 does not automatically allow a seven-year depreciation period simply because the replacement component has a seven-year technical life. Useful life reflects its expected utility to the entity.

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