VEXORIAN NEXUS

Fit *check.*

A connector fit bench for drawing reviews

Local design proposal for vexorianai.com

Illustrative connector geometry

P24 / BAYONET PLUG



S24 / BAYONET SOCKET

Which 24 mm socket goes on the drawing?

In this example, a design student gives an illustrator a sketch labelled “24 mm socket.” Two sockets meet the description. Their mating faces call for different features.



S24 Bayonet socket

Slots receive three radial lugs.



H24 Keyed socket

A keyway receives one axial guide.

The fit bench

Choose a plug and a socket, then press Check fit.



SELECT

P24 plug and S24 socket

READ

The parts join. The message confirms 24 mm and alignment of all three bayonet lugs.

Separate the parts to compare their faces again.

Nine pairings, three matches

Read across a plug row. A cell lists the feature that prevents engagement or records a match on both catalog fields.

Plug / socket	S24	S36	H24
P24	**Match**	Size	Lock
P36	Size	**Match**	Size + lock
K24	Lock	Size + lock	**Match**

Size = nominal diameter. Lock = locking profile.

P36 + H24

Two differences

A 36 mm bayonet plug meets a 24 mm keyed socket. Switching to S24 fixes the profile alone. S36 resolves both differences.

Keep K24 and change its socket

A drawing review can isolate the locking feature by holding the plug and the nominal diameter constant.

K24 + S24



Stopped at interface

The guide on K24 cannot engage the bayonet socket.

K24 + H24



Joined view

H24 has the matching keyway. Both parts retain a 24 mm nominal diameter.

What a matched result establishes

K24 + H24 / STORED FIELDS

24 mm = 24 mm

keyed = keyed

JavaScript compares those two fields and CSS moves the illustrations.

NEXT DRAWING CHECK

How much clearance remains?

On an axial section, mark the plug outside diameter and socket bore at the same position. Obtain their tolerance limits, then compare the largest permitted plug with the smallest opening.

Insertion force, wear and retention under load need separate evidence.

The corrected callout

~~24 mm socket~~

> K24 plug with H24 keyed socket, 24 mm nominal



Mark the keyway orientation on the end view. Reopen K24 and H24 on the bench so the next reviewer can trace the caption to the intended mating faces.