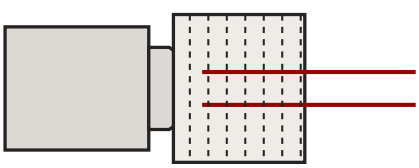
Hydraulic Fitting Thread Sizes

jandesupply.com/reference-hydraulic-fitting-sizes.php

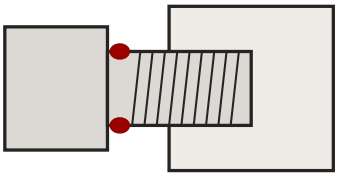
J & E Supply & FASTENER CO.

Hydraulic adapter end threads by dash size: JIC 37° flare by tube OD, SAE O-ring boss and the pipe end.

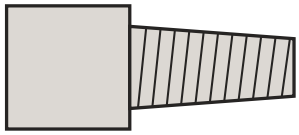
A **hydraulic adapter** is sized by its **dash number** — sixteenths of an inch. On a **JIC 37° flare** or **O-ring boss** end the dash is the tube OD: a -6 end is for 3/8″ tube and is 9/16-18. On a **pipe end** the dash is the pipe size: -4 is 1/4″ pipe, 1/4-18. The threads per inch and size of a pipe end are on the pipe thread chart; brass flare and compression threads are on the tube fitting chart.



37° flare (JIC)
male 37° cone + female swivel nut



O-ring boss (ORB)
straight thread, O-ring seals in the port



Pipe end
tapered thread seals on the threads

How each end seals. Not to scale. The thread in each table is the end's straight (JIC, O-ring boss) or taper (pipe) thread for that dash size.

JIC 37° flare thread sizes — by tube OD (SAE J514)

TUBE OD	DASH SIZE	THREAD
1/8″	-2	5/16-24
3/16″	-3	3/8-24
1/4″	-4	7/16-20
5/16″	-5	1/2-20
3/8″	-6	9/16-18
1/2″	-8	3/4-16
5/8″	-10	7/8-14
3/4″	-12	1-1/16-12
7/8″	-14	1-3/16-12
1″	-16	1-5/16-12
1-1/4″	-20	1-5/8-12
1-1/2″	-24	1-7/8-12
2″	-32	2-1/2-12

Male cone and female swivel nut thread, inches – threads per inch, per the Parker (Triple-Lok BTX nut), Brennan, Midland / Tompkins, Checkfluid and HoseBox tables. A dash: our sources differ or only one lists it — give us a call.

O-ring boss (ORB) thread sizes — SAE straight thread, by dash size

DASH SIZE	TUBE OD	THREAD
-2	1/8″	5/16-24
-3	3/16″	3/8-24
-4	1/4″	7/16-20
-5	5/16″	1/2-20
-6	3/8″	9/16-18
-8	1/2″	3/4-16
-10	5/8″	7/8-14
-12	3/4″	1-1/16-12
-14	7/8″	1-3/16-12
-16	1″	1-5/16-12
-20	1-1/4″	1-5/8-12
-24	1-1/2″	1-7/8-12
-32	2″	2-1/2-12

Straight thread of the male end and the port, per the Brennan, Checkfluid and HoseBox tables. The O-ring is sized for the port — use the maker's O-ring. A dash: only one of our sources lists it.

Hydraulic pipe end thread sizes — NPTF / NPT, by dash size

DASH SIZE	PIPE SIZE	THREAD
-2	1/8″	1/8-27
-4	1/4″	1/4-18
-6	3/8″	3/8-18
-8	1/2″	1/2-14
-12	3/4″	3/4-14
-16	1″	1-11½
-20	1-1/4″	1-1/4-11½
-24	1-1/2″	1-1/2-11½
-32	2″	2-11½

Taper pipe end of a hydraulic adapter, per the Brennan, Midland / Tompkins, Checkfluid and HoseBox tables. Threads per inch and pipe OD: see the pipe thread chart.

Good to know

Size by the dash number. The dash number is the size in sixteenths of an inch: on a JIC or O-ring boss end it is the tube OD (-6 = 3/8″ tube), on a pipe end the pipe size (-4 = 1/4″ pipe). Two ends of one adapter can be different dash sizes.

37° flare (JIC). The male end has a 37° cone; the female swivel nut pulls the flared tube or the female seat onto it and the metal-to-metal cone makes the seal — the thread only holds it together. A 45° SAE flare is a different seat even where the thread is the same.

O-ring boss. A straight thread with an O-ring at the base of the male end; the O-ring seals in the chamfer of the port. Never put a pipe or JIC fitting in an O-ring boss port.

Pipe end. A taper thread that seals on the threads; hydraulic adapter makers list it as NPTF (Dryseal), the same threads per inch and size as NPT. Use thread sealant on the male thread.

Same thread, different end. A JIC end and an O-ring boss end of the same dash size share a thread (-4 is 7/16-20 on both) but seal differently — match the end type, not just the thread.

Ratings come from the maker. Working pressure depends on the end type, the size, the material and the maker — use the maker's rating for that exact fitting. This chart gives sizes only.

Quick answers

What thread is a -6 JIC fitting?
A -6 JIC 37° flare end (3/8″ tube OD) is **9/16-18**; -4 is 7/16-20 and -8 is 3/4-16.

What thread is a -8 O-ring boss (ORB) port?
A -8 SAE O-ring boss is **3/4-16**; -4 is 7/16-20 and -6 is 9/16-18.

Is -6 JIC the same thread as -6 O-ring boss?
Yes — both are 9/16-18 — but they seal differently: the JIC end on a 37° cone, the O-ring boss end with an O-ring in the port. They do not seal in each other's place.

What does -12 mean on a hydraulic fitting?
The dash number is the size in sixteenths of an inch: on a JIC or O-ring boss end it is the tube OD, so **-12 = 3/4″** tube (1-1/16-12); on a pipe end it is the pipe size.

What is the pipe thread on a -4 hydraulic adapter?
A -4 pipe end is **1/4-18** (1/4″ pipe) and -6 is 3/8-18 — hydraulic adapter makers list it as NPTF (Dryseal), the same threads per inch as NPT.

Reference values drawn from the governing standards. For critical applications, confirm against the standard and the manufacturer's published data. Technical information disclaimer →