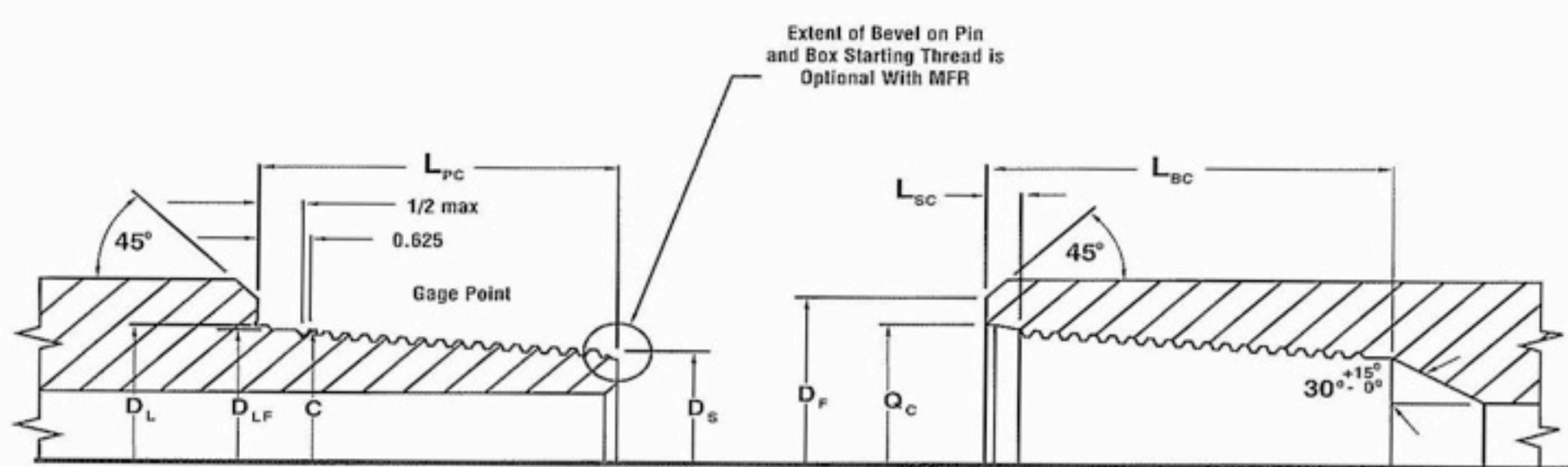


Thread Identification Chart



- D – OD
- d – ID
- D_L – Major Cone Diameter at Shoulder
- D_{LF} – Diameter of Cylinder Section
- C – Pitch Diameter at Gauge Point
- D_s – Bevel Diameter
- D_s – Small Diameter of Pin
- Q_c – Box Counterbore Diameter
- L_{pc} – Length of Pin
- L_{bc} – Depth of Box
- L_{sc} – Box Smooth Counterbore Depth

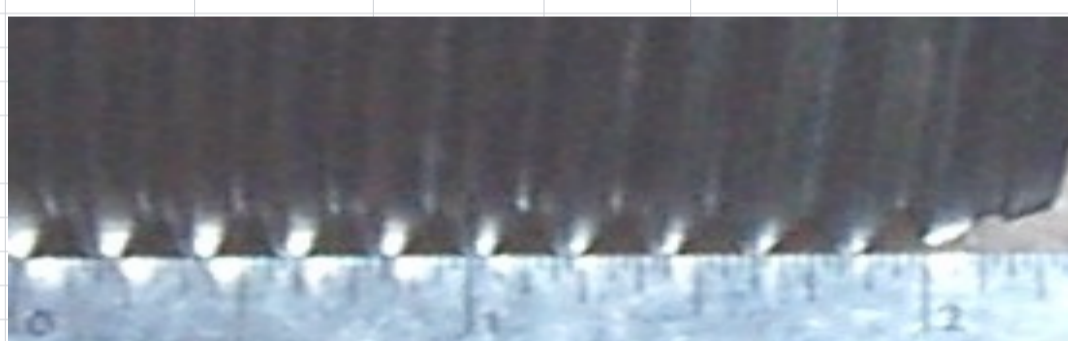
Diagram Reference	Standard Tool Joint Diameter	Standard Tool Joint Air Hole	Threads Per Inch	Taper Per Foot	Length of Pin	Large Diameter of Pin	Small Diameter of Pin	Box Counter Bore	Length of Box Thread
Connection	OD	ID	TPI	TPF	L pc LP	D L DLP	D s SDP	Q c CBD	L BC LB
2 IF	2 3/8"	1"	4	2	2 1/2"	2.000"	1.583"	2 1/16"	2 3/4"
2 3/8 PAC	2 7/8"	1 3/8"	4	1 1/2"	2 3/8"	2.359"	2.063"	2 13/32"	3 1/8"
2 3/8 Mayhew Jr	2 3/4"	1 1/2"	4	2"	2 1/4"	2.322"	1.947"	2 13/32"	2 3/4"
2 3/8 FEDP	3 1/4"	1 1/2"	4	2"	2 5/8"	2.500"	2.046"	2 9/16"	2 7/8"
2 7/8 PAC	3 1/8"	1 1/2"	4	1 1/2"	2 3/8"	2.531"	2.437"	2 37/64"	3"
2 3/8 Mayhew Reg	3 1/4"	1 5/8"	4	1 1/2"	3"	2.550"	2.175"	2 41/64"	3 1/2"
2 3/8 API Reg	3 1/8"	1"	5	3"	3"	2.625"	1.875"	2 11/16"	3 5/8"
2 3/8 API IF (NC26)	3 3/8"	1 3/4"	4	2"	3"	2.876"	2.376"	2 15/16"	3 5/8"
2 7/8 API Reg	3 3/4"	1 1/4"	5	3"	3 1/2"	3"	2.125"	3 1/16"	4 1/8"
2 7/8 Mayhew FH	3 3/4"	2"	4	1 1/2"	3 3/8"	3.050"	2.628"	3 9/64"	3 5/8"
2 7/8 FEDP	3 3/4"	1 7/8"	4	2"	3 1/8"	3.125"	2.578"	3 3/16"	3 5/8"
3 Beco	4 1/2"	2 1/2"	2	3"	3 5/8"	3.485"	2.579"	3 5/8"	4 1/2"
2 7/8 IF (NC31)	4 1/8"	2 1/8"	4	2"	3 1/2"	3.391"	2.812"	3 29/64"	4 1/8"
3 1/2 API Reg	4 1/4"	1 1/2"	5	3"	3 3/4"	3.500"	2.562"	3 9/16"	4 3/8"
2 7/8 API FH	4 1/4"	2 1/8"	5	3"	3 1/2"	3.625"	3.453"	3 11/16"	4 3/8"
NC35	4 3/4"	2 11/16"	4	2"	3 3/4"	3.739"	3.109"	3 13/16"	4 3/8"
3 1/2 API IF (NC38)	4.75"	2 11/16"	4	2"	4"	4.016"	3.343"	4 5/64"	4 5/8"
3 1/2 Beco	5"	1 1/2"	2	3"	3 5/8"	3.985"	3.079"	4 1/8"	4 1/2"
4 API FH (NC40)	5 1/4"	2 13/16"	4	2"	4 1/2"	4.280"	3.531"	4 11/32"	5 1/8"
3 1/2 API FH	4 5/8"	2 7/16"	5	3"	3 3/4"	3.994"	3.062"	4 3/64"	4 3/8"
4 Beco	5 1/2"	2"	2	3"	4 1/8"	4.487"	3.453"	4 5/8"	5"
NC44	6"	2 1/4"	4	2"	4 1/2"	4.625"	3.875"	4 11/16"	5 1/8"
4 1/2 API Reg	5 1/2"	2 1/4"	5	3"	4 1/4"	4.625"	3.562"	4 11/16"	4 7/8"
4 1/2 API FH	6"	3"	5	3"	4"	4.792"	3.796"	4 27/32"	4 5/8"
4 IF (NC46)	6	3 1/4"	4	2"	4 1/2"	4.834"	4.093"	4 29/32"	5 1/8"
4 1/2 Beco	6 1/8"	2"	2	3"	4 1/8"	4.985"	3.953"	5 1/8"	5"
4 1/2 API IF (NC50)	6 5/8"	3 3/4"	4	2"	4 1/2"	5.250"	4.500"	5 5/16"	5 1/8"
5 1/2 API Reg	6 3/4"	2 3/4"	4	3"	4 3/4"	5.520"	4.328"	5 37/64"	5 3/8"
5 1/4 Beco	7"	2 1/4"	2	3"	4 3/4"	5.735"	4.547"	5 7/8"	5 1/2"
6 5/8 API Reg	7 3/4"	3 1/2"	4	2"	5"	5.992"	5.156"	6 3/64"	5 5/8"
6 Beco	8"	3 1/4"	2	3"	4 7/8"	6.485"	5.266"	6 5/8"	5 1/2"
7 5/8 API Reg	8 7/8"	4"	4	3"	5 1/4"	7"	5.688"	7 3/32"	5 7/8"
7 Beco	9 1/4"	3 1/4"	4	2"	4 7/8"	7.485"	6.266"	7 5/8"	5 1/2"
8 5/8 API Reg	10"	4 3/4"	4	3"	5 3/8"	7.951"	6.609"	8 3/64"	6"
8 Beco	10 3/4"	4 3/4"	2	3"	5"	8.485"	7.237"	8 5/8"	5 3/4"
10 Beco	12 3/4"	4 3/4"	2	3"	7"	10.485"	8.735"	10 5/8"	7 5/8"

Notes Concerning the chart headings

Connection	This is the name of the connection.
OD	This is the standard tool joint diameter. This is the diameter where the connection is in balance. If the connection is on a smaller diameter, the box end will become weaker. If the diameter is increased, the box becomes stronger. If this diameter is significantly larger, there is danger of pin breakage. This can be remedied to a point by decreasing the ID of the pin in order to maintain connection balance.
ID	This is the standard internal diameter of the pin connection.
TPI	This is the number of threads per inch of length along the taper.
TPF	This is the amount of taper per foot of length along the axis.
LP	This is the length of the pin. This typically has an 1/8" tolerance and the actual length can vary from manufacturer to manufacturer.
LDP	This is the diameter at the base of the pin connection. When a pin connection is machined, there is typically a relief at the base of the pin. This makes it difficult measure this dimension. SEE Diagram D L and D L F.
SDP	This is the diameter at the top of the pin connection. This is a reference number only as the measured dimension is subject to pin length, which can vary. There is also a bevel at the top of the pin that is not included in the measurement.
CBD	This is the measurement at the opening of the box connection. This dimension typically has at least 1/8" tolerance so it can vary. This dimension, along with the TPI, is very useful in determining a particular connection.
CBD in 64ths	This is the same as above but all fractions are expressed as 64ths. This is to help determine the thread by using the counterbore.

How to use this chart.

First, count the threads per inch. This is easier if you look at the pin connection. You can use a ruler and lay it along the side of the pin. Place ruler at the center of one



To identify the connection utilizing the pin, you first need to determine if the connection has the straight cylinder section machined at the base of the pin. When holding two straight edges at 180 degrees along the thread crests, a gap at the shoulder indicates that there is a cylinder machined (see picture below).

If no gap exists, then measure the diameter at the base of the pin and find a match in the "DL" column

If a gap exists, as shown in the picture, then you would need to measure the distance between the straight edges at the base of the pin. When there is a machined cylinder at the base of the pin, it may be best to identify the mating box connection.



The best method to determine your connection is to utilize the Box Counterbore and Threads Per Inch dimensions.

Then, use a dial caliper to measure the Box Counterbore. Keep in mind the tolerance. Since the bore is tapered. The reading must be taken at the face. Beware of a bevel on the ID.



EXAMPLE:
 Reading: 3.548 (ID had a bevel so the measure was not quite at the face)
 Use chart below to find nearest 3 35/64
 To account for the tolerance, look for threads within 3 32/64 to 3 38/64
 Only 3 1/2 Reg in range confirmed with the 5 tpi

Fraction	Decimal	Fraction	Decimal	Fraction	Decimal	Fraction	Decimal
1/64	0.016	17/64	0.266	33/64	0.516	49/64	0.766
1/32 (2/64)	0.031	9/32 (18/64)	0.281	17/32 (34/64)	0.531	25/32 (50/64)	0.781
3/64	0.047	19/64	0.297	35/64	0.547	51/64	0.797
1/16 (4/64)	0.063	5/16 (20/64)	0.312	9/16 (36/64)	0.562	13/16 (52/64)	0.812
5/64	0.078	21/64	0.328	37/64	0.578	53/64	0.828
3/32 (6/64)	0.094	11/32 (22/64)	0.344	19/32 (38/64)	0.594	27/32 (54/64)	0.844
7/64	0.109	23/64	0.359	39/64	0.609	55/64	0.859
1/8 (8/64)	0.125	3/8 (24/64)	0.375	5/8 (40/64)	0.625	7/8 (56/64)	0.875
9/64	0.141	25/64	0.391	41/64	0.641	57/64	0.891
5/32 (10/64)	0.156	13/32 (26/64)	0.407	21/32 (42/64)	0.656	29/32 (58/64)	0.906
11/64	0.172	27/64	0.422	43/64	0.672	59/64	0.922
3/16 (12/64)	0.188	7/16 (28/64)	0.438	11/16 (44/64)	0.688	15/16 (60/64)	0.938
13/64	0.203	29/64	0.453	45/64	0.703	61/64	0.953
7/32 (14/64)	0.219	15/32 (30/64)	0.469	23/32 (46/64)	0.719	31/32 (62/64)	0.969
15/64	0.234	31/64	0.484	47/64	0.734	63/64	0.984
1/4 (16/64)	0.25	1/2 (32/64)	0.5	3/4 (48/64)	0.75	1 (64/64)	1

