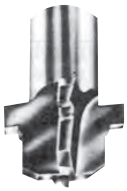
Port cutting tools

Counterbore tools and thread taps for metric ports

For manufacturing metric ports to ISO 6149 (Details see chapter D).

These tools allow correct manufacturing of metric port connections. Counterbore tools are made of high speed tool steel (HSS).

Ordering counterbore tools



ISO 6149 Port size	Order code
	Large Spot face[1])
M 08×1.0	R1449A
M 10×1.0	R1450A
M 12×1.5	R1451A
M 14×1.5	R1452A
M 16×1.5	R1453A
M 18×1.5	R1454A
M 22×1.5	R1455A
M 27×2.0	R1456A
M 33×2.0	R1457A
M 42×2.0	R1458A
M 48×2.0	R1459A

1) with ID-groove

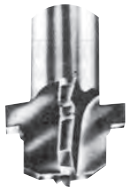
H

Counterbore tools and thread taps for straight SAE thread ports

For manufacturing UNF ports to SAE J 1926-1 (details see chapter D)

These tools allow correct manufacturing of UNF port connections. Counterbore tools and thread taps are made of high speed tool steel (HSS).

counterbore tools

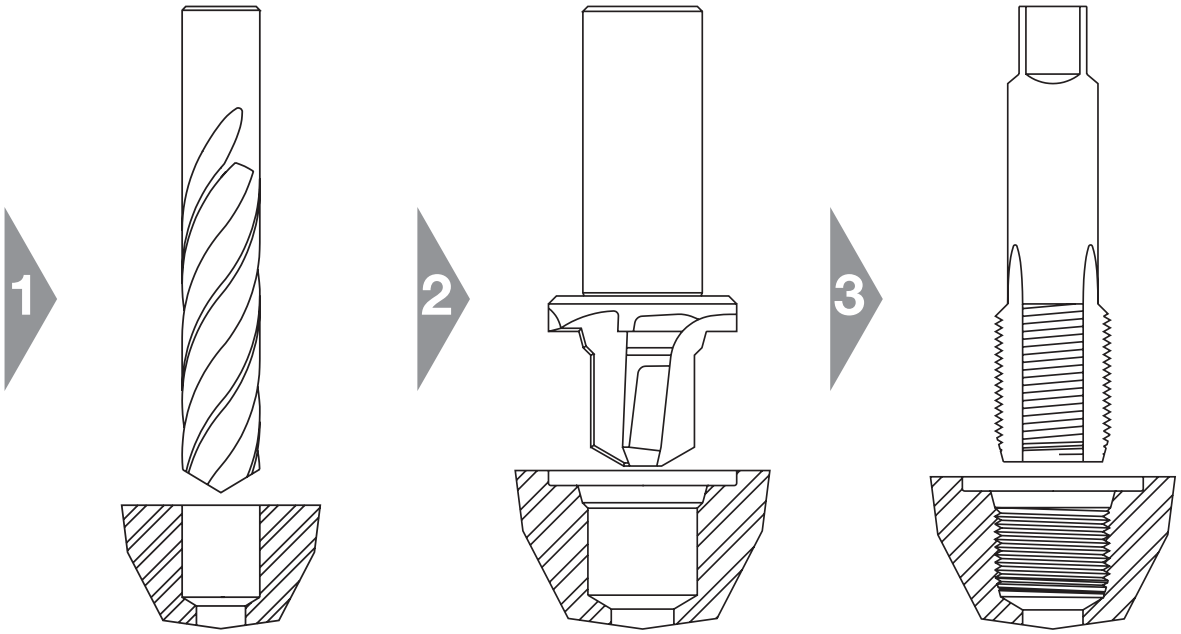


Use with UNF thread size	SAE dash size	Order code
5/16-24	2	Y-34730
3/8-24	3	Y-34731
7/16-20	4	Y-34732
1/2-20	5	Y-34733
9/16-18	6	Y-34734
3/4-16	8	Y-34735
7/8-14	10	Y-34736
1 1/16-12	12	Y-34737
1 3/16-12	14	Y-34738
1 5/16-12	16	Y-34739
1 5/8-12	29	Y-34740
1 7/8-12	24	Y-34741
2 1/2-12	32	Y-34743

thread taps

Use with UNF thread size	SAE dash size	Order code
5/16-24	2	5/16X24 UNF-2B
3/8-24	3	3/8X24 UNF-2B
7/16-20	4	7/16X20 UNF-2B
1/2-20	5	1/2X20 UNF-2B
9/16-18	6	9/16X18 UNF-2B
3/4-16	8	3/4X16 UNF-2B
7/8-14	10	7/8X14 UNF-2B
1 1/16-12	12	1 1/16X12 UNF-2B
1 3/16-12	14	1 3/16X12 UNF-2B
1 5/16-12	16	1 5/16X12 UNF-2B
1 5/8-12	29	1 5/8X12 UNF-2B
1 7/8-12	24	1 7/8X12 UNF-2B
2 1/2-12	32	2 1/2X12 UNF-2B

Operation of port cutting tools



1. Pilot hole drilling **2. Port counterboring** **3. Thread tapping**

Note:
All dimensions must be according to relevant standards. See chapter D for details.
It is necessary to create a spotface surface which is flat and perpendicular to the port. Smooth finish to prevent leakage or O-ring extrusion.

Parker counterbore tools are made from high speed tool steel (HSS). Regular HSS port tapping tools are intented for workshop use and repair.
Maximum lifetime of Parker counterbores can be achieved by:
- use for cutting mild steel or aluminium only
- staying within recommended cutting speed for HSS / port material
- sufficiant lubrication and cooling
- workshop use and repair only

For serial production of hydraulic ports, these Parker workshop tools are not suitable.
For production, Parker generally recommends to use hard carbide alloy.

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