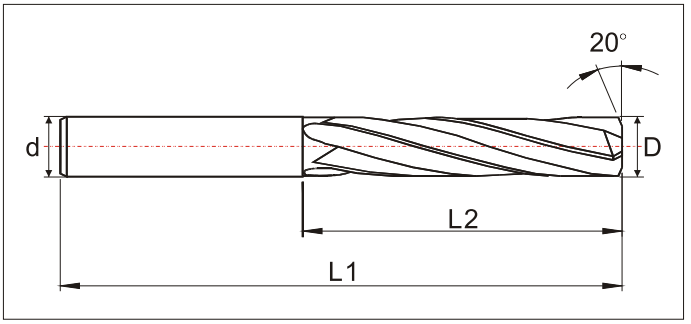
Solid Carbide Speedy Reamer

YSR

YSRL



- 15˚right helix spiral, 20˚chamfer(standard) for high speed reaming
- Standard H7 tolerance, special point & tolerance or corner radius available on demand
- Speedy reaming Vc = 40~80m/min., f = 0.1mm/rev.per flute, TiN & TiAlN coated.
- Best combination if use with our standard YSD Solid carbide drill.

YSR Solid Carbide Speedy Reamer.

Code No.	D	d	L1	L2	Number of Flute
YSR 030 - YSR 035	3.0 - 3.5	4.0	54	19	3
YSR 036 - YSR 041	3.6 - 4.1	4.0	54	24	3
YSR 042 - YSR 051	4.2 - 5.1	5.0	61	31	3
YSR 052 - YSR 061	5.2 - 6.1	6.0	65	35	3
YSR 062 - YSR 071	6.2 - 7.1	7.0	73	41	3
YSR 072 - YSR 081	7.2 - 8.1	8.0	78	45	3
YSR 082 - YSR 091	8.2 - 9.1	9.0	82	48	3
YSR 092 - YSR 101	9.2 - 10.1	10.0	87	51	4
YSR 102 - YSR 111	10.2 - 11.1	11.0	93	53	4
YSR 112 - YSR 121	11.2 - 12.1	12.0	100	60	4
YSR 122 - YSR 131	12.2 - 13.1	13.0	100	60	4
YSR 132 - YSR 141	13.2 - 14.1	14.0	105	62	4
YSR 142 - YSR 151	14.2 - 15.1	15.0	108	64	4
YSR 152 - YSR 161	15.2 - 16.1	16.0	112	66	4
YSR 162 - YSR 171	16.2 - 17.1	17.0	116	68	4
YSR 172 - YSR 181	17.2 - 18.1	18.0	120	71	4
YSR 182 - YSR 191	18.2 - 19.1	19.0	124	73	4
YSR 192 - YSR 200	19.2 - 20.0	20.0	128	77	4

YSRL Solid Carbide Speedy Reamer, Long series

Code No.	D	d	L1	L2	Number of Flute
YSRL 030 - YSRL 035	3.0 - 3.5	4.0	79	44	3
YSRL 036 - YSRL 041	3.6 - 4.1	4.0	79	44	3
YSRL 042 - YSRL 051	4.2 - 5.1	5.0	79	44	3
YSRL 052 - YSRL 061	5.2 - 6.1	6.0	82	49	3
YSRL 062 - YSRL 071	6.2 - 7.1	7.0	84	52	3
YSRL 072 - YSRL 081	7.2 - 8.1	8.0	89	57	3
YSRL 082 - YSRL 091	8.2 - 9.1	9.0	96	62	3
YSRL 092 - YSRL 101	9.2 - 10.1	10.0	103	66	4
YSRL 102 - YSRL 111	10.2 - 11.1	11.0	108	71	4
YSRL 112 - YSRL 121	11.2 - 12.1	12.0	118	78	4
YSRL 122 - YSRL 131	12.2 - 13.1	13.0	135	88	4
YSRL 132 - YSRL 141	13.2 - 14.1	14.0	145	94	4
YSRL 142 - YSRL 151	14.2 - 15.1	15.0	150	97	4
YSRL 152 - YSRL 161	15.2 - 16.1	16.0	157	109	4
YSRL 162 - YSRL 171	16.2 - 17.1	17.0	157	109	4
YSRL 172 - YSRL 181	17.2 - 18.1	18.0	157	109	4
YSRL 182 - YSRL 191	18.2 - 19.1	19.0	157	109	4
YSRL 192 - YSRL 200	19.2 - 20.0	20.0	157	109	4

Note

YSR reamer is available on request only,
All the dimension is similar to YSD drills.

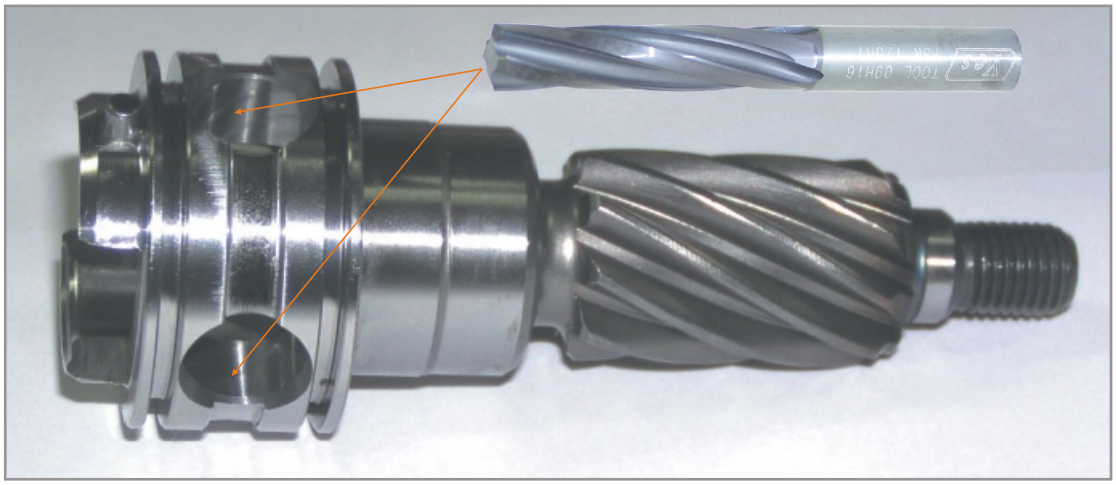
Machining case of YSR

- Company : "M" Automotive
- Applied Carbide Speedy Reamer : YSR120-R0.6
- Kind of machine : Machining center, Vertical spindle
- Work-piece : SCM420H, EPS Pinion shaft, HRC27~31
  (See reamed work-piece photo)
- Cutting speed : 1200rpm, Vc = 45m/min., f = 0.2mm/rev.
- Pre-drilling : Φ11.8mm, cut-off : 0.1mm(one side)
- Coolant : External soluble oil

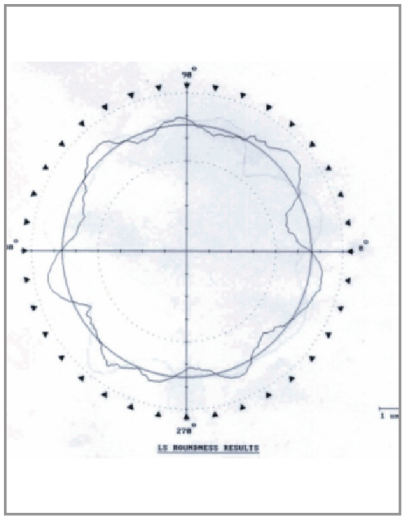
Resulted in great performance

- Roundness : O=1.80μm,
- Roughness : Ra = 0.14μm
- Cycle time 650% increase

Photo illustrates the reamed actual work-piece, EPS Pinion shaft.

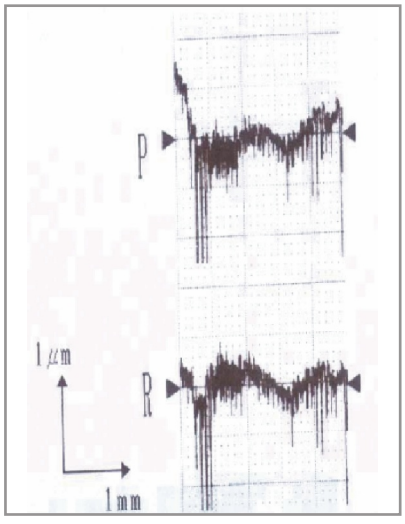


Roundness measures



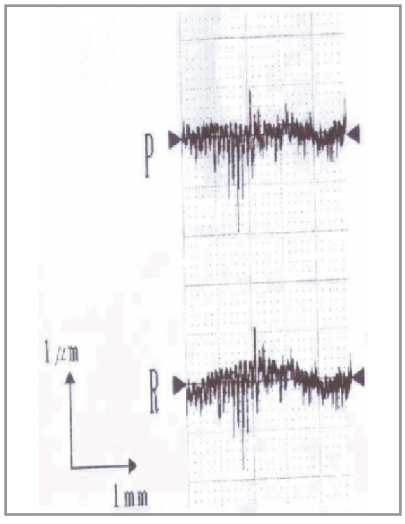
Measuring : External
O = 1.80μm

Roughness for hole mouth



P: Polarity
R : Round measure
Ra = 0.14 μm
Rmax = 3.18 μm
Rz = 1.58 μm

Roughness for hole end



P: Polarity
R : Round measure
Ra = 0.10 μm
Rmax = 1.46 μm
Rz = 0.94 μm

❖ YSR Speedy reamer ran at faster cycle time, higher speed & feed, longer tool life along with greater roundness and roughness.