

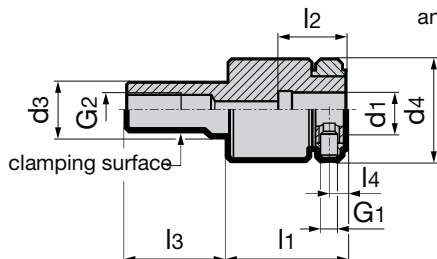
Mini floating holders with side lock holder

Product information

- holder shank with lateral clamping surface
- suitable for conventional and high performance multi-fluted reamers, because of no angle compensation
- very compact design for restricted space
- central coolant supply max. 80 bar
- drive flat on tool shank necessary
- for tool shank tolerance h6

Scope of delivery

- for other shank \varnothing order reduction sleeves Series no. 4097 separately
- order hexagon chuck key Series no. 4912 separately
- further sizes with differing radial play are available on request
- compensates lateral deviation between tool and workpiece
- vibration-free compensation of concentricity and misalignment



Series no. **4174**

d ₃ g6 mm	for holder d ₁ h6 mm	recommen- ded tool- \varnothing	d ₄ mm	l ₁ mm	l ₂ mm	l ₃ mm	l ₄ mm	G ₁	G ₂	radial play	Code no.	EDP Number
16	10	to \varnothing 14	30	35	20	30	5	M5	1/8	0.12	10.016	9041740100160

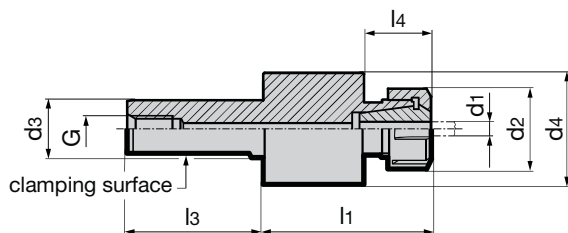
Floating holder with ER collet holder

Product information

- straight shank d₃ with whistle notch flat
- suitable for conventional and high performance multi-fluted reamers, because of no angle compensation
- for the application of internally cooled reamers use metallic sealed collets type DM Series no. 4175
- central coolant supply max. 80 bar

Scope of delivery

- incl. retaining nut
- order collet Series no. 4175 or 4307 as well as clamping key Series no. 4913 separately
- further sizes with differing radial play are available on request
- compensates lateral deviation between tool and workpiece
- vibration-free compensation of concentricity and misalignment



Series no. **4098**

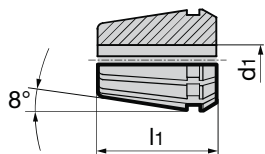
d ₃ g6 mm	recommended tool- \varnothing d1 mm	clamping range	d ₂ mm	d ₄ mm	l ₁ mm	l ₃ mm	l ₄ mm	G	radial play	Code no.	EDP Number
16	up to \varnothing 16	ER20 \varnothing 1-13	34	49.5	74	40	29.5	1/8	0.06	20.016	9040980200160
20	\varnothing 4 - \varnothing 24	ER25 \varnothing 2-16	42	59	84	50	35	1/8	0.06	25.020	9040980250200
25	up to \varnothing 16	ER20 \varnothing 1-13	34	49.5	74	60	29.5	1/4	0.08	20.025	9040980200250
25	\varnothing 4 - \varnothing 24	ER25 \varnothing 2-16	42	59	84	60	35	1/4	0.08	25.025	9040980250250
32	\varnothing 6 - \varnothing 30	ER32 \varnothing 3-20	50	64	91	80	35.5	3/8	0.10	32.032	9040980320320
40	\varnothing 6 - \varnothing 30	ER32 \varnothing 3-20	50	64	91	80	35.5	1/2	0.12	32.040	9040980320400

Product information

- the clamping range of collet, article no. 4307, is to be applied as indicated. For intermediate sizes as i.e. for $\varnothing 6.3$ mm (nom. size ER20) order collet $d_1 = 7.0$ mm - 6.0 mm (Order no. 7.020)
 - concentricity error max. 10 μ m
- clamping range:
 ER11: $\varnothing 0.5 - \varnothing 7.0$
 ER16: $\varnothing 0.5 - \varnothing 10.0$
 ER20: $\varnothing 0.5 - \varnothing 13.0$
 ER25: $\varnothing 0.5 - \varnothing 16.0$
 ER32: $\varnothing 0.5 - \varnothing 20.0$
 ER40: $\varnothing 0.5 - \varnothing 26.0$

Ordering example:

$\varnothing d_1$ = 2.5
 nom. size = ER 20
 article no./Order no. = 4307 02,520
 ($d_1 = 7.0$ mm - 6.0 mm)

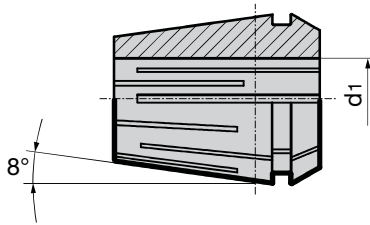
Series no. **4307**

nom. size	for clamping range d_1 mm	l_1 mm	Code no.	EDP Number
ER11	1.0-0.5	18.0	1.011	9043070010110
ER11	1.5-1.0	18.0	1.511	9043070015110
ER11	2.0-1.5	18.0	2.011	9043070020110
ER11	2.5-2.0	18.0	2.511	9043070025110
ER11	3.0-2.5	18.0	3.011	9043070030110
ER11	4.0-3.5	18.0	4.011	9043070040110
ER11	5.0-4.5	18.0	5.011	9043070050110
ER11	6.0-5.5	18.0	6.011	9043070060110
ER11	7.0-6.5	18.0	7.011	9043070070110
ER16	1.0-0.5	27.5	1.016	9043070010160
ER16	1.5-1.0	27.5	1.516	9043070015160
ER16	2.0-1.0	27.5	2.016	9043070020160
ER16	2.5-1.5	27.5	2.516	9043070025160
ER16	3.0-2.0	27.5	3.016	9043070030160
ER16	4.0-3.0	27.5	4.016	9043070040160
ER16	5.0-4.0	27.5	5.016	9043070050160
ER16	6.0-5.0	27.5	6.016	9043070060160
ER16	7.0-6.0	27.5	7.016	9043070070160
ER16	8.0-7.0	27.5	8.016	9043070080160
ER16	9.0-8.0	27.5	9.016	9043070090160
ER16	10.0-9.0	26.0	10.016	9043070100160
ER20	1.0-0.5	31.5	1.020	9043070010200
ER20	1.5-1.0	31.5	1.520	9043070015200
ER20	2.0-1.0	31.5	2.020	9043070020200
ER20	2.5-1.5	31.5	2.520	9043070025200
ER20	3.0-2.0	31.5	3.020	9043070030200
ER20	4.0-3.0	31.5	4.020	9043070040200
ER20	5.0-4.0	31.5	5.020	9043070050200
ER20	6.0-5.0	31.5	6.020	9043070060200
ER20	7.0-6.0	31.5	7.020	9043070070200
ER20	8.0-7.0	31.5	8.020	9043070080200
ER20	9.0-8.0	31.5	9.020	9043070090200
ER20	10.0-9.0	31.5	10.020	9043070100200
ER20	11.0-10.0	31.5	11.020	9043070110200
ER20	12.0-11.0	31.5	12.020	9043070120200
ER20	13.0-12.0	31.5	13.020	9043070130200
ER25	1.0-0.5	34.0	1.025	9043070010250
ER25	1.5-1.0	34.0	1.525	9043070015250
ER25	2.0-1.0	34.0	2.025	9043070020250
ER25	2.5-1.5	34.0	2.525	9043070025250
ER25	3.0-2.0	34.0	3.025	9043070030250
ER25	4.0-3.0	34.0	4.025	9043070040250
ER25	5.0-4.0	34.0	5.025	9043070050250
ER25	6.0-5.0	34.0	6.025	9043070060250
ER25	7.0-6.0	34.0	7.025	9043070070250
ER25	8.0-7.0	34.0	8.025	9043070080250

				Series no.	4307
nom. size	for clamping range d ₁ mm	l ₁ mm	Code no.	EDP Number	
ER25	9 to 8	34	9.025	9043070090250	
ER25	10 to 9	34	10.025	9043070100250	
ER25	11 to 10	34	11.025	9043070110250	
ER25	12 to 11	34	12.025	9043070120250	
ER25	13 to 12	34	13.025	9043070130250	
ER25	14 to 13	34	14.025	9043070140250	
ER25	15 to 14	34	15.025	9043070150250	
ER25	16 to 15	34	16.025	9043070160250	
ER32	2 to 1.5	40	2.032	9043070020320	
ER32	2.5 to 2	40	2.532	9043070025320	
ER32	3 to 2.5	40	3.032	9043070030320	
ER32	4 to 3	40	4.032	9043070040320	
ER32	5 to 4	40	5.032	9043070050320	
ER32	6 to 5	40	6.032	9043070060320	
ER32	7 to 6	40	7.032	9043070070320	
ER32	8 to 7	40	8.032	9043070080320	
ER32	9 to 8	40	9.032	9043070090320	
ER32	10 to 9	40	10.032	9043070100320	
ER32	11 to 10	40	11.032	9043070110320	
ER32	12 to 11	40	12.032	9043070120320	
ER32	13 to 12	40	13.032	9043070130320	
ER32	14 to 13	40	14.032	9043070140320	
ER32	15 to 14	40	15.032	9043070150320	
ER32	16 to 15	40	16.032	9043070160320	
ER32	17 to 16	40	17.032	9043070170320	
ER32	18 to 17	40	18.032	9043070180320	
ER32	19 to 18	40	19.032	9043070190320	
ER32	20 to 19	40	20.032	9043070200320	
ER40	4 to 3	46	4.040	9043070040400	
ER40	5 to 4	46	5.040	9043070050400	
ER40	6 to 5	46	6.040	9043070060400	
ER40	7 to 6	46	7.040	9043070070400	
ER40	8 to 7	46	8.040	9043070080400	
ER40	9 to 8	46	9.040	9043070090400	
ER40	10 to 9	46	10.040	9043070100400	
ER40	11 to 10	46	11.040	9043070110400	
ER40	12 to 11	46	12.040	9043070120400	
ER40	13 to 12	46	13.040	9043070130400	
ER40	14 to 13	46	14.040	9043070140400	
ER40	15 to 14	46	15.040	9043070150400	
ER40	16 to 15	46	16.040	9043070160400	
ER40	17 to 16	46	17.040	9043070170400	
ER40	18 to 17	46	18.040	9043070180400	
ER40	19 to 18	46	19.040	9043070190400	
ER40	20 to 19	46	20.040	9043070200400	
ER40	21 to 20	46	21.040	9043070210400	
ER40	22 to 21	46	22.040	9043070220400	
ER40	23 to 22	46	23.040	9043070230400	
ER40	24 to 23	46	24.040	9043070240400	
ER40	25 to 24	46	25.040	9043070250400	
ER40	26 to 25	46	26.040	9043070260400	

Product information

- DIN ISO 15488
 - for application without sealing washer
 - concentricity error max. 6 µm
 - for high-performance tools with internal cooling e.g. HR 500 reamers
 - metallic sealed up to 300 bar coolant pressure
 - ER-DM collets with restricted clamping range
- The tool must be clamped flush, or deeper into the collet chuck. A minimum clamping length of 2/3 as for standard collet chucks is not possible as there would be no other sealing.



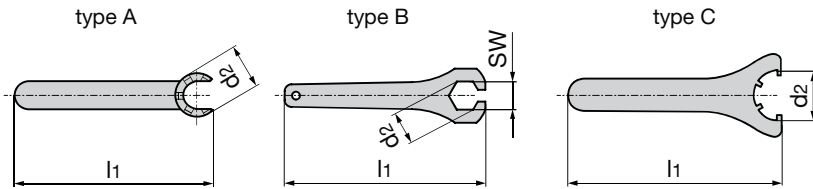
Series no. **4175**

nom. size	clamping range d1 h9	Code no..	EDP Number
ER20	3.00	3.020	9041750030200
ER20	4.00	4.020	9041750040200
ER20	5.00	5.020	9041750050200
ER20	6.00	6.020	9041750060200
ER20	7.00 - 6.50	7.020	9041750070200
ER20	8.00 - 7.50	8.020	9041750080200
ER20	9.00 - 8.50	9.020	9041750090200
ER20	10.00 - 9.50	10.020	9041750100200
ER20	11.00 - 10.50	11.020	9041750110200
ER20	12.00 - 11.50	12.020	9041750120200
ER20	13.00 - 12.50	13.020	9041750130200
ER25	6.00	6.025	9041750060250
ER25	8.00 - 7.50	8.025	9041750080250
ER25	10.00 - 9.50	10.025	9041750100250
ER25	12.00 - 11.50	12.025	9041750120250
ER25	14.00 - 13.50	14.025	9041750140250
ER25	16.00 - 15.50	16.025	9041750160250
ER32	6.00	6.032	9041750060320
ER32	8.00 - 7.50	8.032	9041750080320
ER32	10.00 - 9.50	10.032	9041750100320
ER32	12.00 - 11.50	12.032	9041750120320
ER32	14.00 - 13.50	14.032	9041750140320
ER32	16.00 - 15.50	16.032	9041750160320
ER32	18.00 - 17.50	18.032	9041750180320
ER32	20.00 - 19.50	20.032	9041750200320

Tool holders

Product information

- for clamping nuts
- Type A with special hook key for clamping nuts
System DIN 6499 mini design
- Type B for clamping nuts with hexagonal design
- Type C for clamping nuts for external slots



Series no.

4913

nom. size mm	type	l ₁ mm	for ER d ₂ mm	SW	EDP Number
ER16 mini	A	122	22	-	9049130162000
ER20 mini	A	139	28	-	9049130202000
ER25 mini	A	143	35	-	9049130252000
ER11	B	141	19	17	9049130110000
ER16	B	178	28	25	9049130160000
ER16	C	161	32	-	9049130160320
ER20	B	200	34	30	9049130200000
ER20	C	183	35	-	9049130201000
ER25	C	210	42	-	9049130250000
ER32	C	250	50	-	9049130320000
ER40	C	290	63	-	9049130400000

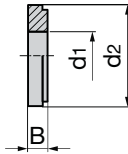
Tool holders

Product information

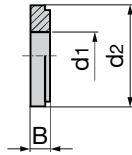
- the application range of sealing washer, article no. 4325, is from nom.-Ø d1 to the next dimension below, i.e. for Ø 6.3 mm (nom. size ER20) order sealing washer d1 = 6.5 mm (Order no. 6.520).
- suitable for up to 150 bar coolant pressure

Ordering example

Ø d1 = 3.5
 nom. size = ER 20
 article no./Order no. = 4335 3.520



						Series no.	4335
nominal size	d1 mm	Sealing Range	d2 mm	B mm	Code no.	EDP Number	
ER16	3	2.5 to 3	13	4	3.016	9043350030160	
ER20	3	2.5 to 3	16	4	3.020	9043350030200	
ER25	3	2.5 to 3	21	4	3.025	9043350030250	
ER32	3	2.5 to 3	27	4	3.032	9043350030320	
ER16	3.5	3 to 3.5	13	4	3.516	9043350035160	
ER20	3.5	3 to 3.5	16	4	3.520	9043350035200	
ER25	3.5	3 to 3.5	21	4	3.525	9043350035250	
ER32	3.5	3 to 3.5	27	4	3.532	9043350035320	
ER40	3.5	3 to 3.5	33.5	4	3.540	9043350035400	
ER16	4	3.5 to 4	13	4	4.016	9043350040160	
ER20	4	3.5 to 4	16	4	4.020	9043350040200	
ER25	4	3.5 to 4	21	4	4.025	9043350040250	
ER32	4	3.5 to 4	27	4	4.032	9043350040320	
ER40	4	3.5 to 4	33.5	4	4.040	9043350040400	
ER16	4.5	4 to 4.5	13	4	4.516	9043350045160	
ER20	4.5	4 to 4.5	16	4	4.520	9043350045200	
ER25	4.5	4 to 4.5	21	4	4.525	9043350045250	
ER32	4.5	4 to 4.5	27	4	4.532	9043350045320	
ER40	4.5	4 to 4.5	33.5	4	4.540	9043350045400	
ER16	5	4.5 to 5	13	4	5.016	9043350050160	
ER20	5	4.5 to 5	16	4	5.020	9043350050200	
ER25	5	4.5 to 5	21	4	5.025	9043350050250	
ER32	5	4.5 to 5	27	4	5.032	9043350050320	
ER40	5	4.5 to 5	33.5	4	5.040	9043350050400	
ER16	5.5	5 to 5.5	13	4	5.516	9043350055160	
ER20	5.5	5 to 5.5	16	4	5.520	9043350055200	
ER25	5.5	5 to 5.5	21	4	5.525	9043350055250	
ER32	5.5	5 to 5.5	27	4	5.532	9043350055320	
ER40	5.5	5 to 5.5	33.5	4	5.540	9043350055400	
ER16	6	5.5 to 6	13	4	6.016	9043350060160	
ER20	6	5.5 to 6	16	4	6.020	9043350060200	
ER25	6	5.5 to 6	21	4	6.025	9043350060250	
ER32	6	5.5 to 6	27	4	6.032	9043350060320	
ER40	6	5.5 to 6	33.5	4	6.040	9043350060400	
ER16	6.5	6 to 6.5	13	4	6.516	9043350065160	
ER20	6.5	6 to 6.5	16	4	6.520	9043350065200	
ER25	6.5	6 to 6.5	21	4	6.525	9043350065250	
ER32	6.5	6 to 6.5	27	4	6.532	9043350065320	
ER40	6.5	6 to 6.5	33.5	4	6.540	9043350065400	
ER16	7	6.5 to 7	13	4	7.016	9043350070160	
ER20	7	6.5 to 7	16	4	7.020	9043350070200	
ER25	7	6.5 to 7	21	4	7.025	9043350070250	
ER32	7	6.5 to 7	27	4	7.032	9043350070320	
ER40	7	6.5 to 7	33.5	4	7.040	9043350070400	

Series no. **4335**

nominal size	d ₁ mm	Sealing Range	d ₂ mm	B mm	Code no.	EDP Number
ER16	7.5	7 to 7.5	13	4	7.516	9043350075160
ER20	7.5	7 to 7.5	16	4	7.520	9043350075200
ER25	7.5	7 to 7.5	21	4	7.525	9043350075250
ER32	7.5	7 to 7.5	27	4	7.532	9043350075320
ER40	7.5	7 to 7.5	33.5	4	7.540	9043350075400
ER16	8	7.5 to 8	13	4	8.016	9043350080160
ER20	8	7.5 to 8	16	4	8.020	9043350080200
ER25	8	7.5 to 8	21	4	8.025	9043350080250
ER32	8	7.5 to 8	27	4	8.032	9043350080320
ER40	8	7.5 to 8	33.5	4	8.040	9043350080400
ER16	8.5	8 to 8.5	13	4	8.516	9043350085160
ER20	8.5	8 to 8.5	16	4	8.520	9043350085200
ER25	8.5	8 to 8.5	21	4	8.525	9043350085250
ER32	8.5	8 to 8.5	27	4	8.532	9043350085320
ER40	8.5	8 to 8.5	33.5	4	8.540	9043350085400
ER16	9	8.5 to 9	13	4	9.016	9043350090160
ER20	9	8.5 to 9	16	4	9.020	9043350090200
ER25	9	8.5 to 9	21	4	9.025	9043350090250
ER32	9	8.5 to 9	27	4	9.032	9043350090320
ER40	9	8.5 to 9	33.5	4	9.040	9043350090400
ER16	9.5	9 to 9.5	13	4	9.516	9043350095160
ER20	9.5	9 to 9.5	16	4	9.520	9043350095200
ER25	9.5	9 to 9.5	21	4	9.525	9043350095250
ER32	9.5	9 to 9.5	27	4	9.532	9043350095320
ER40	9.5	9 to 9.5	33.5	4	9.540	9043350095400
ER16	10	9.5 to 10	13	4	10.016	9043350100160
ER20	10	9.5 to 10	16	4	10.020	9043350100200
ER25	10	9.5 to 10	21	4	10.025	9043350100250
ER32	10	9.5 to 10	27	4	10.032	9043350100320
ER40	10	9.5 to 10	33.5	4	10.040	9043350100400
ER20	10.5	10 to 10.5	16	4	10.520	9043350105200
ER25	10.5	10 to 10.5	21	4	10.525	9043350105250
ER32	10.5	10 to 10.5	27	4	10.532	9043350105320
ER40	10.5	10 to 10.5	33.5	4	10.540	9043350105400
ER20	11	10.5 to 11	16	4	11.020	9043350110200
ER25	11	10.5 to 11	21	4	11.025	9043350110250
ER32	11	10.5 to 11	27	4	11.032	9043350110320
ER40	11	10.5 to 11	33.5	4	11.040	9043350110400
ER20	11.5	11 to 11.5	16	4	11.520	9043350115200
ER25	11.5	11 to 11.5	21	4	11.525	9043350115250
ER32	11.5	11 to 11.5	27	4	11.532	9043350115320
ER40	11.5	11 to 11.5	33.5	4	11.540	9043350115400
ER20	12	11.5 to 12	16	4	12.020	9043350120200
ER25	12	11.5 to 12	21	4	12.025	9043350120250
ER32	12	11.5 to 12	27	4	12.032	9043350120320
ER40	12	11.5 to 12	33.5	4	12.040	9043350120400
ER20	12.5	12 to 12.5	16	4	12.520	9043350125200
ER25	12.5	12 to 12.5	21	4	12.525	9043350125250
ER32	12.5	12 to 12.5	27	4	12.532	9043350125320
ER40	12.5	12 to 12.5	33.5	4	12.540	9043350125400

					Series no.	4335
nominal size	d ₁ mm	Sealing Range	d ₂ mm	B mm	Code no.	EDP Number
ER20	13	12.5 to 13	16	4	13.020	9043350130200
ER25	13	12.5 to 13	21	4	13.025	9043350130250
ER32	13	12.5 to 13	27	4	13.032	9043350130320
ER40	13	12.5 to 13	33.5	4	13.040	9043350130400
ER25	13.5	13 to 13.5	21	4	13.525	9043350135250
ER32	13.5	13 to 13.5	27	4	13.532	9043350135320
ER40	13.5	13 to 13.5	33.5	4	13.540	9043350135400
ER25	14	13.5 to 14	21	4	14.025	9043350140250
ER32	14	13.5 to 14	27	4	14.032	9043350140320
ER40	14	13.5 to 14	33.5	4	14.040	9043350140400
ER25	14.5	14 to 14.5	21	4	14.525	9043350145250
ER32	14.5	14 to 14.5	27	4	14.532	9043350145320
ER40	14.5	14 to 14.5	33.5	4	14.540	9043350145400
ER25	15	14.5 to 15	21	4	15.025	9043350150250
ER32	15	14.5 to 15	27	4	15.032	9043350150320
ER40	15	14.5 to 15	33.5	4	15.040	9043350150400
ER25	15.5	15 to 15.5	21	4	15.525	9043350155250
ER32	15.5	15 to 15.5	27	4	15.532	9043350155320
ER40	15.5	15 to 15.5	33.5	4	15.540	9043350155400
ER25	16	15.5 to 16	21	4	16.025	9043350160250
ER32	16	15.5 to 16	27	4	16.032	9043350160320
ER40	16	15.5 to 16	33.5	4	16.040	9043350160400
ER32	16.5	16 to 16.5	27	4	16.532	9043350165320
ER40	16.5	16 to 16.5	33.5	4	16.540	9043350165400
ER32	17	16.5 to 17	27	4	17.032	9043350170320
ER40	17	16.5 to 17	33.5	4	17.040	9043350170400
ER32	17.5	17 to 17.5	27	4	17.532	9043350175320
ER40	17.5	17 to 17.5	33.5	4	17.540	9043350175400
ER32	18	17.5 to 18	27	4	18.032	9043350180320
ER40	18	17.5 to 18	33.5	4	18.040	9043350180400
ER32	18.5	18 to 18.5	27	4	18.532	9043350185320
ER40	18.5	18 to 18.5	33.5	4	18.540	9043350185400
ER32	19	18.5 to 19	27	4	19.032	9043350190320
ER40	19	18.5 to 19	33.5	4	19.040	9043350190400
ER32	19.5	19 to 19.5	27	4	19.532	9043350195320
ER40	19.5	19 to 19.5	33.5	4	19.540	9043350195400
ER32	20	19.5 to 20	27	4	20.032	9043350200320
ER40	20	19.5 to 20	33.5	4	20.040	9043350200400
ER40	20.5	20 to 20.5	33.5	4	20.540	9043350205400
ER40	21	20.5 to 21	33.5	4	21.040	9043350210400
ER40	21.5	21 to 21.5	33.5	4	21.540	9043350215400
ER40	22	21.5 to 22	33.5	4	22.040	9043350220400
ER40	22.5	22 to 22.5	33.5	4	22.540	9043350225400
ER40	23	22.5 to 23	33.5	4	23.040	9043350230400
ER40	23.5	23 to 23.5	33.5	4	23.540	9043350235400
ER40	24	23.5 to 24	33.5	4	24.040	9043350240400
ER40	24.5	24 to 24.5	33.5	4	24.540	9043350245400
ER40	25	24.5 to 25	33.5	4	25.040	9043350250400
ER40	25.5	25 to 25.5	33.5	4	25.540	9043350255400
ER40	26	25.5 to 26	33.5	4	26.040	9043350260400