

# ETP locking bush range



## ETP-EXPRESS

Single screw locking bushes for the fastest fixing and removal, high accuracy.  
15 to 55mm



## ETP-CLASSIC

General purpose locking bushes for fast mounting, easy adjustment and trouble-free disconnection.  
Metric and imperial  
15 to 100mm and 3/4" to 4"



## ETP-TECHNO

Single screw locking bushes with extremely high precision in terms of run-out.  
15 to 100mm



## ETP-MINI

Miniature mechanical locking bushes, simple and economical hub fixing. Metric and imperial.  
6 to 14mm and 1/4" to 1/2"

Also ETP-MINI R stainless steel range

# ETP-EXPRESS

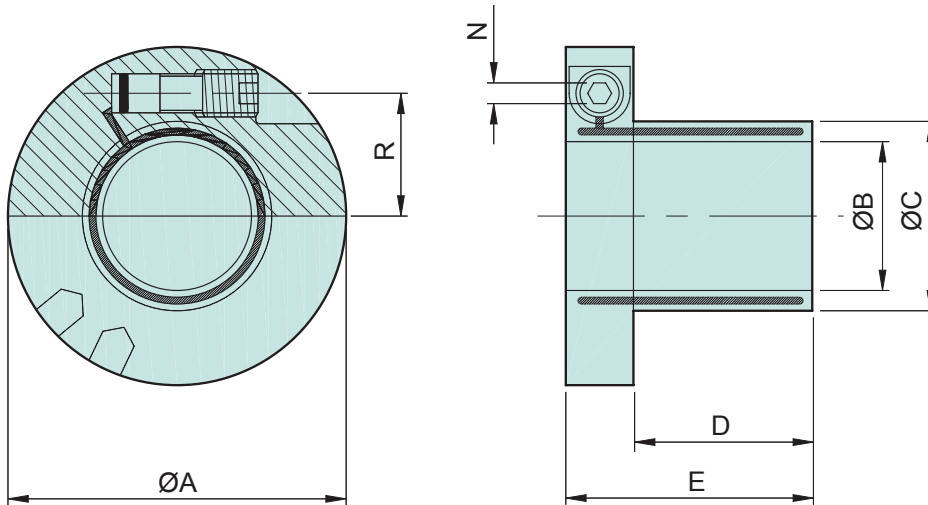
ETP-Express is a single screw locking bush to the ETP hydraulic principle. The single screw and piston allows the bush to be located and fixed in one operation. Dismantling by loosening the screw immediately releases the bush, an operation that can be repeated hundreds of times.



Single radial pressure screw
Ultra fast fixing
No axial movement during mounting
Remountable up to 1000 times
Medium high torques
Thin wall for compact assemblies

H7 hub tolerances, h7 shaft tolerances for 19, 22, 24, 28, 32, 38 and 55 sizes  
H7 hub tolerances h8 shaft tolerances for all other sizes.

## Technical data



### Temperature

Max. allowed 85°C  
Min. allowed -30°C  
Refer to Bedford if ambient temperatures are below 0°C.

### Concentricity

0.03 mm

ETP EXPRESS size	Rated torque Tr Nm	Max axial force Fr kN	Max radial force Fr kN	Weight grams	A	B	C	D	E	R	N mm	Mt Nm	Stockline No. ETP-EXPRESS standard
15	55	7.3	0.5	170	45	15	18	25	39	5	5	14.5	<b>R6-642 158</b>
19	75	7.9	1	210	49.5	19	23	28	42	5	5	17	<b>R6-642 166</b>
20	125	12.5	1	210	50	20	24	30	44	5	5	17.5	<b>R6-642 174</b>
24	210	17.5	1	270	58	24	29	33	47	5	5	19.5	<b>R6-642 182</b>
25	255	20.4	1.5	310	59	25	30	35	49	5	5	20	<b>R6-642 190</b>
30	425	28.3	2	370	64	30	36	40	54	5	5	23	<b>R6-642 202</b>
32	485	30.3	2.2	420	66	32	39	42	56	5	5	24	<b>R6-642 210</b>
35	695	39.7	2.5	460	69.5	35	42	45	59	5	5	26	<b>R6-642 229</b>
40	1190	59.5	3	940	85.5	40	48	55	75	8	21	31.5	<b>R6-642 237</b>
45	1555	69.1	3.5	1080	90.5	45	54	58	78	8	21	34.5	<b>R6-642 245</b>
50	2050	82	4.5	1230	96	50	60	60	80	8	21	37	<b>R6-642 253</b>
55	2700	98.2	5	1570	106	55	67	65	85	8	21	40	<b>R6-923 908</b>
3/4"	75	7.9	1	210	49.5	19.05	23	28	42	5	5	17	<b>R6-920 555/8wks</b>
1"	265	20.9	1.5	320	60	25.4	31	35	49	5	5	20.5	<b>R6-254 281/8wks</b>

# ETP-EXPRESS R



ETP-Express R is the stainless steel version of the unique ETP-Express. Exceptional performance is achieved in harsh or corrosive environments. All the advantages of single screw fixing apply.

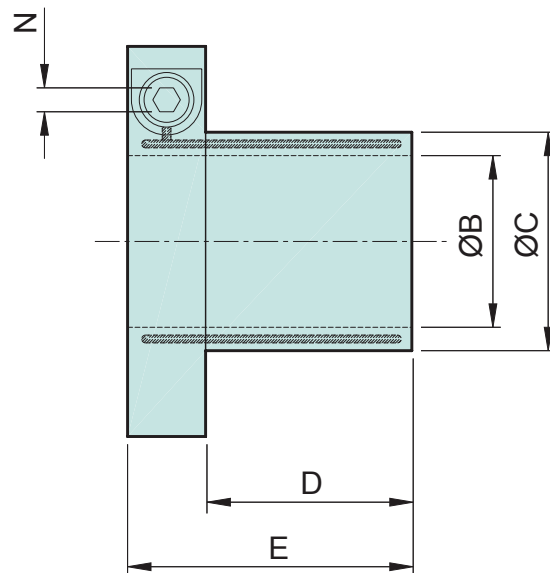
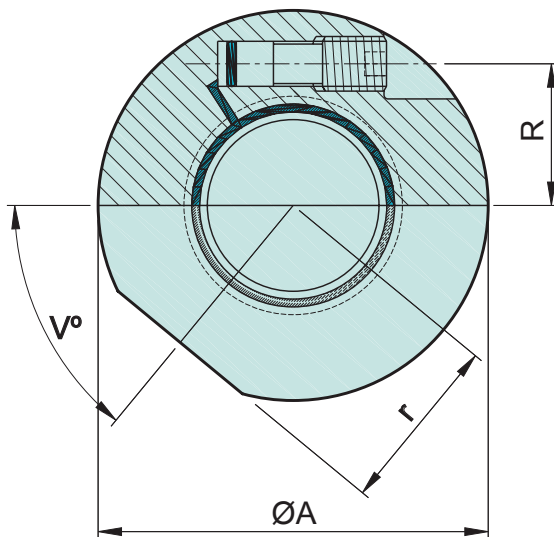
### Speedy single screw operation

Made from high quality 431 S29 stainless steel to BS970 part 1 1991

Specifically designed for the food, marine and chemical industries

Medium to high torques

H7 hub tolerances, h8 shaft tolerances for all sizes.



ETP EXPRESS R size	Rated torque Tr Nm	Max axial force Fr kN	Max radial force Fr kN	Weight grams	A	B	C	D	E	R	r	V°	Stockline No.
R-15	55	7.3	0.5	170	45	15	18	25	39	14.5	18.8	40	<a href="#">R6-849 754</a>
R-20	125	12.5	1	210	50	20	24	30	44	17.5	21.5	36	<a href="#">R6-849 789</a>
R-25	255	20.4	1.5	310	59	25	30	35	49	20	25.8	36	<a href="#">R6-848 923</a>
R-30	425	28.3	2	370	64	30	36	40	54	23	28.2	33	<a href="#">R6-848 931</a>
R-35	695	39.7	2.5	460	69.5	35	42	45	59	26	30.8	30	<a href="#">R6-848 94X</a>
R-40	1190	59.5	3	940	85.5	40	48	55	75	31.5	37.1	32	<a href="#">R6-848 958</a>
R-50	2050	82	4.5	1230	96	50	60	60	80	37	42	29	<a href="#">R6-848 966</a>

# The ETP-CLASSIC

An excellent solution to most applications

Easy fitting and removal

Metric and imperial sizes

Few screws and low tightening torques

No backlash or fretting

Hex-head screw option for installations with limited space

Transmits medium to high torques



H7 hub tolerances, h8 shaft tolerances for all sizes.

A k6 shaft tolerance will improve the transmittable torque Tr.

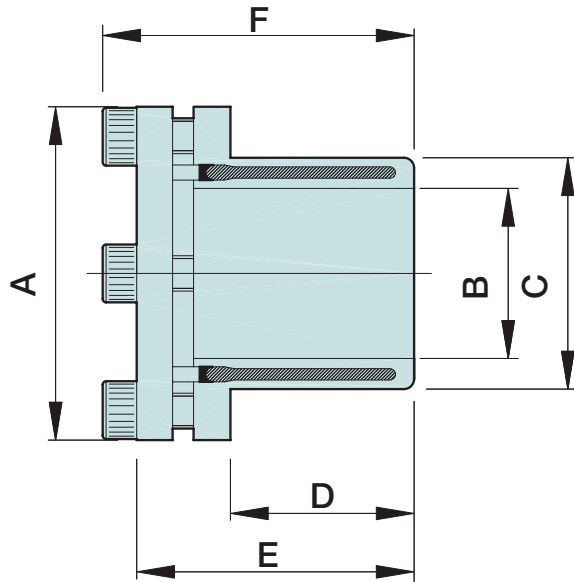
## Metric sizes

ETP CLASSIC size	Rated torque at 20°C Tr Nm	Max axial force Fr kN	Weight grams	A	B	C	D	E	F	Stockline No.	No. of screws	Screw tightening torque Nm	Hex. key size mm	Special hexagon headed screw Stockline No.
ETP 15	55	7.3	100	38	15	23	17	30	35	<b>R6-36 320</b>	3	6	4	<b>R6-56 476</b>
ETP 19	100	10.6	170	45	19	28	21	37	42	<b>R6-36 339</b>	3	8	4	<b>R6-56 476</b>
ETP 20	125	12.5	160	45	20	28	22	37	42	<b>R6-38 952</b>	3	8	4	<b>R6-56 476</b>
ETP 22	135	12.3	190	49	22	32	22	37	42	<b>R6-38 960</b>	4	8	4	<b>R6-56 476</b>
ETP 24	200	16.7	200	49	24	34	25	40	45	<b>R6-38 979</b>	4	8	4	<b>R6-56 476</b>
ETP 25	250	20.0	190	49	25	34	27	43	48	<b>R6-38 987</b>	4	8	4	<b>R6-56 476</b>
ETP 28	300	21.4	260	55	28	39	29	45	50	<b>R6-38 995</b>	4	8	4	<b>R6-56 476</b>
ETP 30	420	28.0	290	57	30	41	32	47	52	<b>R6-39 00X</b>	4	8	4	<b>R6-56 476</b>
ETP 32	420	26.3	350	60	32	43	34	52	57	<b>R6-39 018</b>	4	8	4	<b>R6-56 484</b>
ETP 35	650	37.1	400	63	35	47	37	55	60	<b>R6-39 026</b>	6	8	4	<b>R6-56 484</b>
ETP 38	750	39.5	430	65	38	50	41	59	64	<b>R6-39 034</b>	6	8	4	<b>R6-56 484</b>
ETP 40	940	47.0	550	70	40	53	43	63	68	<b>R6-39 042</b>	6	8	4	<b>R6-56 492</b>
ETP 42	940	44.8	550	70	42	55	45	65	70	<b>R6-39 050</b>	6	8	4	<b>R6-56 492</b>
ETP 45	1290	57.3	710	77	45	59	49	69	75	<b>R6-39 069</b>	6	13	5	<b>R6-56 504</b>
ETP 48	1570	65.4	780	80	48	62	52	73	79	<b>R6-39 077</b>	6	13	5	<b>R6-56 504</b>
ETP 50	1900	76.0	860	83	50	65	53	76	82	<b>R6-39 085</b>	6	13	5	<b>R6-56 512</b>
ETP 55	2500	90.9	1060	88	55	71	58	82	88	<b>R6-39 093</b>	8	13	5	<b>R6-56 512</b>
ETP 60	3400	113.0	1370	95	60	77	64	90	96	<b>R6-39 105</b>	8	13	5	<b>R6-56 520</b>
ETP 65	3500	108	1670	102	65	84	68	96	102	<b>R6-39 113</b>	8	13	5	<b>R6-56 520</b>
ETP 70	5200	149.0	2040	113	70	90	72	99	107	<b>R6-39 121</b>	6	32	6	<b>R6-56 539</b>
ETP 75	6300	168.0	2510	118	75	95	85	114	122	<b>R6-39 13X</b>	6	32	6	<b>R6-56 547</b>
ETP 80	8800	220.0	2680	123	80	100	90	120	128	<b>R6-39 148</b>	6	32	6	<b>R6-56 547</b>
ETP 90	11000	244.0	3520	135	90	112	100	133	141	<b>R6-39 164</b>	8	32	6	<b>R6-57 213</b>
ETP 100	15500	310.0	4870	148	100	125	110	145	153	<b>R6-39 180</b>	8	32	6	<b>R6-57 213</b>

## Imperial sizes (inch)

ETP 3/4in	88	9.3	180	45	3/4 in	28	21	37	42	<b>R6-485 18X</b>	3	7	4	<b>R6-56 476</b>
ETP 7/8in	135	12.1	210	49	7/8 in	32	22	37	42	<b>R6-152 205</b>	3	8	4	<b>R6-56 476</b>
ETP 1in	195	16.2	215	51	1 in	35	27	43	48	<b>R6-114 323</b>	4	8	4	<b>R6-56 476</b>
ETP 1 1/4in	410	26.1	380	60	1 1/4 in	43	34	52	58	<b>R6-114 331</b>	4	13	5	<b>R6-184 700</b>
ETP 1 3/8in	540	31.1	430	63	1 3/8 in	47	37	55	60	<b>R6-114 34X</b>	6	8	4	<b>R6-56 484</b>
ETP 1 1/2in	700	41.3	470	68	1 1/2 in	52	41	59	64	<b>R6-73 177</b>	6	8	5	<b>R6-56 484</b>
ETP 1 3/4in	1180	53.0	740	77	1 3/4 in	59	49	69	75	<b>R6-114 358</b>	6	13	5	<b>R6-56 504</b>
ETP 2in	1620	64.3	839	88	2 in	68	53	76	82	<b>R6-114 366</b>	6	13	5	<b>R6-56 512</b>
ETP 2 1/2in	3100	97.6	1750	107	2 1/2 in	84	62	88	96	<b>R6-152 213</b>	6	32	6	<b>R6-56 539</b>
ETP 3in	5300	139.1	2255	121	3 in	98	74	103	111	<b>R6-152 221</b>	6	32	6	<b>R6-56 547</b>
ETP 4in	12500	264.0	4800	155	4 in	130	97	132	140	<b>R6-152 23X</b>	8	32	6	<b>R6-57 213</b>

# The ETP-CLASSIC



**ETP CLASSIC**

## Hex headscrews

Available for use with ETP bush when space is limited. Hex headscrews are standard on ETP CLASSIC R.

## Concentricity

Radial - 0.04 mm TIR sizes 15 to 70  
0.06 mm TIR sizes 75 to 100

Axial - 0.06 mm TIR for all sizes at 120 mm diameter. This also applies to ETP CLASSIC R.

## Temperature limit

Maximum 85°C - minimum -30°C.

For temperatures below 10°C or for applications with large variation in temperature, contact our Bedford office.

# ETP-CLASSIC R



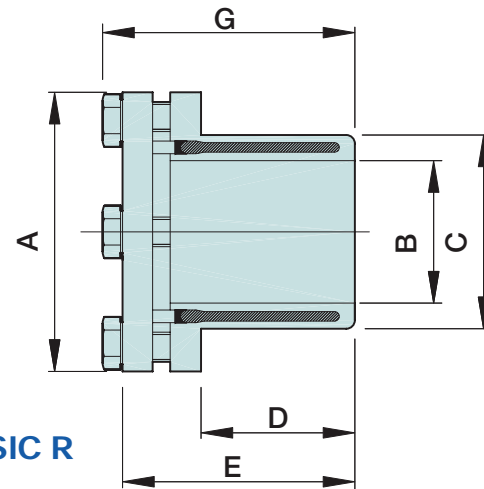
The ETP CLASSIC R is the stainless steel version of the ETP CLASSIC with all these additional benefits:

Made from high quality 420S37 stainless steel to BS970 Part 1 1991

Specifically designed for the food, marine and chemical industries

Medium torques

Hex head screws as standard



**ETP CLASSIC R**

H7 hub tolerances, h9 shaft tolerances except R-15 which is h8.

ETP CLASSIC size	Rated torque at 20°C T <sub>r</sub> Nm	Max axial force F <sub>r</sub> kN	A	B	C	D	E	G	Screw thread	Screw tightening torque Nm	Stockline No.
R-15	35	4.7	38	15	23	17	30	34	M5	5.4	<a href="#">R6-75 679</a>
R-20	90	9.0	45	20	28	22	37	41	M5	5.4	<a href="#">R6-75 790</a>
R-25	175	14.0	49	25	34	27	43	46	M5	5.4	<a href="#">R6-175 301</a>
R-30	255	17.0	57	30	41	32	47	51	M5	5.4	<a href="#">R6-83 443</a>
R-35	390	22.3	63	35	47	37	55	59	M5	5.4	<a href="#">R6-950 926</a>
R-40	600	30.0	70	40	53	43	63	67	M5	5.4	<a href="#">R6-89 35X</a>
R-45	900	40.0	77	45	59	49	69	73	M6	9.3	<a href="#">R6-178 914</a>
R-50	1300	52.0	83	50	65	53	76	80	M6	9.3	<a href="#">R6-62 76X</a>



# ETP-TECHNO

The ETP Techno is a unique hydraulic friction joint, offering extremely high accuracy and fast operation. By tightening a single screw the bush grips both shaft and hub. Once tightened fully, a steel ball in the end of the piston acts as a positive stop and secondary seal. To dismantle, loosen the screw and the bush immediately releases its grip.



**Mount and dismantle in seconds with the single pressure screw**

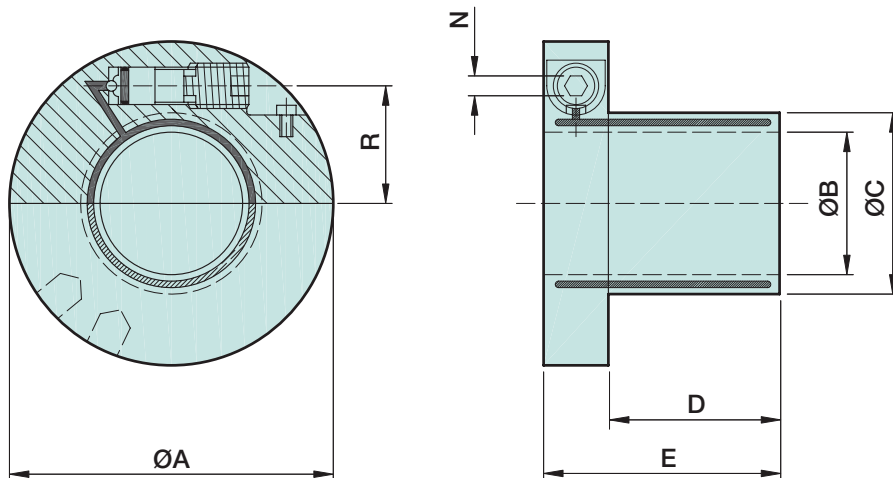
**Unbeatable precision hydraulic bush**

**No movement during tightening**

**Ideal where downtime is critical**

**Medium - high torques**

H7 hub tolerances, h8 shaft tolerance for all sizes.  
A K6 shaft tolerance will improve the transmittable torque Tr.



### Temperature

Max. allowed 110°C  
Min. allowed -30°C  
Refer to Bedford if ambient temperatures are below 0°C.

### Run out accuracy

Radial 0.006mm  
Axial 0.020mm  
Measured at 120mm radius

### Balance

Approximately 50gmm/kg

ETP TECHNO bush	Rated torque Tr Nm	Max axial force Fr kN	Max radial force Fr kN	Weight grams	A	B	C	D	E	R	Screw tightening torque Tclamp Nm	Hex key size mm	Stockline No.
T-15	40	5	1	250	52	15	19	25	41	16	10	6	<a href="#">R6-194 153</a>
T-20	120	12	2	320	59	20	25	30	46	19	10	6	<a href="#">R6-154 991</a>
T-25	290	23	3	580	70	25	32	35	55	24	16	6	<a href="#">R6-174 556</a>
T-30	500	33	4	690	76	30	38	40	60	26.5	16	6	<a href="#">R6-174 564</a>
T-32	600	37	4	780	79	32	41	42	62	27.5	16	6	<a href="#">R6-667 303/12 wks</a>
T-35	800	45	5	840	82	35	44	45	65	29	16	6	<a href="#">R6-204 569</a>
T-40	1200	60	6	1180	92	40	52	55	75	33.5	24	8	<a href="#">R6-174 572</a>
T-45	1550	68	7	1240	96	45	56	58	78	35.5	24	8	<a href="#">R6-449 803/14 wks</a>
T-50	2000	80	9	1620	105	50	65	60	80	39.5	24	8	<a href="#">R6-174 580</a>
T-60	4000	133	12	2510	122	60	75	70	95	46.5	40	10	<a href="#">R6-174 599</a>
T-70	6500	186	13	3650	136	70	90	85	110	52.5	40	10	<a href="#">R6-174 619</a>
T-75	7800	208	14	4200	146	75	95	90	115	56	40	10	<a href="#">R6-449 811/14 wks</a>
T-80	9000	225	15	4770	154	80	100	95	120	58	40	10	<a href="#">R6-449 82X</a>
T-90	13000	288	17	6480	170	90	112	105	133	65	60	10	<a href="#">R6-521 46X/14 wks</a>
T-100	18000	360	19	8410	184	100	125	115	145	72	80	12	<a href="#">R6-521 478/14 wks</a>

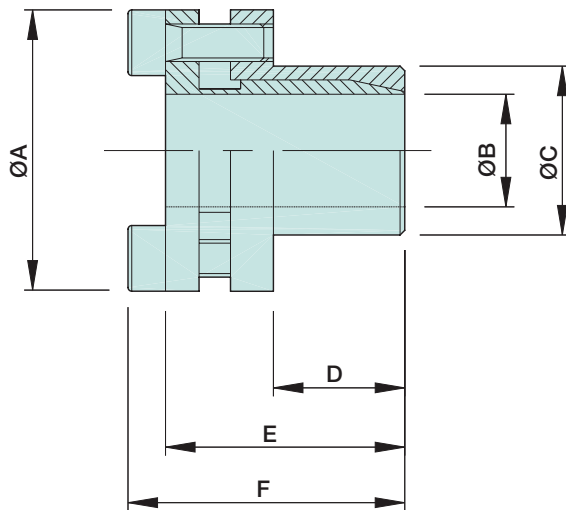
# The ETP-MINI bush

**NEW** Stainless steel range

The ETP-MINI bush has been developed for smaller applications, down to shaft sizes of 6mm. Its powerful grip is produced by means of sliding tapers.

- Easy to mount and dismount
- The only locking assembly for small applications
- Cost effective
- Transmits high torques
- New ETP-Mini R stainless steel ranges

H8 hub tolerances, K6 to h10 shaft tolerances for all sizes.



ETP MINI shaft	Rated torque Tr Nm	Max axial force Fr kN	Wt g	Inertia Inertia kgm <sup>-2</sup> x10 <sup>-6</sup>	A	B	C	D	E	F	No. of Screws	Screw tightening torque Nm	Hex key size mm	Stockline No.
Mini 6	5	1.7	30	2.1	25	6	14	10	19	22	2	2	2.5	<a href="#">R6-111 139</a>
Mini 8	17	4.4	40	3.3	27	8	15	12	21.5	25.5	2	4	3	<a href="#">R6-111 147</a>
Mini 9	20	4.4	50	4.4	28	9	16	14	24	28	2	4	3	<a href="#">R6-111 155</a>
Mini 10	23	4.4	50	4.3	28	10	16	14	24	28	2	4	3	<a href="#">R6-56 441</a>
Mini 11	25	4.4	60	6.2	30	11	18	14	25.5	29.5	2	4	3	<a href="#">R6-111 171</a>
Mini 12	27	4.4	60	6.1	30	12	18	14	25.5	29.5	2	4	3	<a href="#">R6-111 18X</a>
Mini 14	48	6.5	80	13.2	35	14	22	15	27.5	31.5	3	4	3	<a href="#">R6-212 786</a>
Mini 1/4in	6	1.7	30	2.1	25	1/4in	14	10	19	22	2	2	2.5	<a href="#">R6-111 112</a>
Mini 3/8in	22	4.4	50	4.4	28	3/8in	16	14	24	28	2	4	3	<a href="#">R6-111 120</a>
Mini 1/2in	29	4.4	60	6.0	30	1/2in	18	14	25.5	29.5	2	4	3	<a href="#">R6-159 474</a>

## The ETP-MINI R

Manufactured in 303 S31 stainless steel, the ETP-MINI R suits severe environments including caustic washdown.

ETP MINI shaft	Rated torque Tr Nm	Max axial force Fr kN	Wt g	Inertia Inertia kgm <sup>-2</sup> x10 <sup>-6</sup>	A	B	C	D	E	F	No. of Screws	Screw tightening torque Nm	Hex key size mm	Stockline No.
R-6	5	1.7	30	2.1	25	6	14	10	19	22	3	1.2	2.5	<a href="#">R6-641 946</a>
R-8	17	4.4	40	3.3	27	8	15	12	21.5	25.5	3	2.7	3	<a href="#">R6-641 997</a>
R-10	23	4.4	50	4.3	28	10	16	14	24	28	3	2.7	3	<a href="#">R6-642 01X</a>
R-12	27	4.4	60	6.1	30	12	18	14	25.5	29.5	3	2.7	3	<a href="#">R6-642 131</a>
R-14	48	6.5	80	13.2	35	14	22	15	27.5	31.5	4	2.7	3	<a href="#">R6-642 14X</a>