

ETP-EXPRESS® R

Stainless



The demand from the food and process industries is increasing for stainless steel hub-shaft connections. The most common sizes of the hydraulic connection ETP-EXPRESS are available in stainless steel. The flat flange design allows for easy cleaning, essential within food processing. Also the pressure medium and screw lubricant are approved for use in the food industry.

ETP-EXPRESS R is available as standard for shafts 15-80 mm, also imperial. Runout $\leq 0,02$ mm. Number of mountings 200 – 800 (size dependent). The extremely thin built-in dimensions allows for a compact design with low weight and inertia.

Construction

ETP-EXPRESS R is a hydraulic connection which consists of a double-walled hardened stainless steel sleeve filled with a pressure medium, and a flange. The flange part contains a stainless screw and piston with seals to maintain pressure.

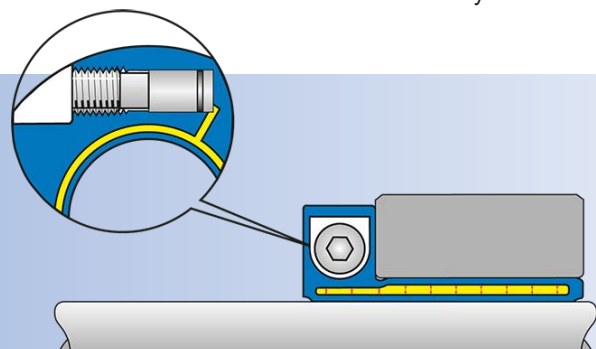
BENEFITS & FEATURES

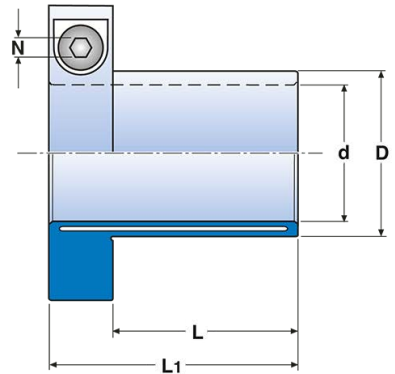
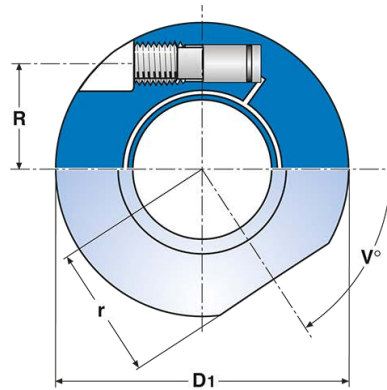
- ETP-EXPRESS R have the same benefits and features as ETP-EXPRESS.
- All parts exposed to the environment are made of stainless steel.
- Flat flange design allows for easy cleaning.
- Pressure medium and screw lubricant are food approved.

Operation

When the pressure screw is tightened, the double-walled sleeve expands uniformly against shaft and hub and creates a rigid joint. Dismantling is done by loosening the screw. ETP-EXPRESS R returns to its original dimensions and can easily be dismantled.

When the pressure screw is tightened to the recommended tightening torque, the piston has reached the bottom of the bore. ETP-EXPRESS R has created a uniform surface pressure against the shaft and hub.





Notation ETP-EXPRESS R-XX

Technical Specification ETP-EXPRESS R

ETP-EXPRESS	Dimensions								Transmittable			Screws DIN 915, 12.9				Polar moment of inertia J kgm ² · 10 ⁻³	Weight kg
	d mm	D mm	D1 mm	D2* mm	L mm	L1 mm	r mm	v°	torque T Nm	axial force FA kN	radial force FR kN	Dim.	R mm	N mm	Tt Nm		
R-15	15	18	46	48,9	25	39	19,9	53	46	5,1	0,5	M10	15,1	5	5	0,04	0,16
R-3/4"	19,05	23	50,5	53,0	28	42	21,9	55	85	7,3	1	M10	17,4	5	5	0,06	0,20
R-20	20	24	51,5	54,1	30	44	22,6	56	110	9,1	1	M10	18	5	5	0,07	0,21
R-7/8"	22,225	27	55,5	60,5	32	46	24,4	57	130	9,6	1	M10	19,3	5	5	0,10	0,25
R-25	25	30	58	62,9	35	49	25,8	58	230	15	1,5	M10	20,8	5	5	0,12	0,27
R-1"	25,4	31	59	63,8	35	49	26,1	58	190	12	1,5	M10	21,2	5	5	0,13	0,29
R-30	30	36	64,5	71,0	40	54	29,1	59	380	21	2	M10	23,6	5	5	0,19	0,35
R-1 1/4"	31,75	39	68,5	77,7	42	56	31,1	58	430	22	2,2	M10	24,8	5	5	0,25	0,42
R-1 3/8"	34,925	42	73	85,1	45	59	31,9	60,5	640	30	2,5	M10	26,4	5	5	0,31	0,47
R-35	35	42	73	85,1	45	59	33,7	58	640	30	2,5	M10	26,4	5	5	0,32	0,48
R-1 1/2"	38,1	46	84,5	89,5	52	72	36,6	58	890	38	2,8	M16	31	8	21	0,76	0,84
R-40	40	48	86,5	91,2	55	75	37,7	59	1100	45	3	M16	32	8	21	0,84	0,88
R-45	45	54	93	100,3	58	78	41,1	59	1400	51	3,5	M16	34,8	8	21	1,17	1,05
R-50	50	60	98,5	105,1	60	80	43,7	60	1900	63	4,5	M16	37,5	8	21	1,52	1,20
R-60	60	73	115,5	132,7	70	90	53,3	59	3300	90	5,3	M16	43,3	8	21	3,17	1,85

T = Transmittable torque when axial force is 0.
 F_A = Transmittable axial force when torque is 0.
 F_R = Max transmittable radial force at continuous operation.
 Max allowed bending torque: 5% of transmittable torque T .

When the screw is tightened to T_t

T_t = Recommended tightening torque for the screw.
 Further tightening does not increase the pressure.
 *) D_2 is valid before mounting.
 Dimensions subject to alterations without notice.

Tolerances

Shaft h8 (R-15 only h7).
 Hub H7.

Type of torque

Transmittable torque, T , is for static load. If the load is alternating or pulsating torque, reduce the transmittable torque, T , with the following factors: (factor x T).
 Alternating: $0,5 \times T$.
 Pulsating: $0,6 \times T$.

Material

Type R: Euronorm 1.4418, stainless steel, X4CrNiMo16-5-1.
 **) Screw: coated for a low and even friction in the threads.

Mounting advice

Make sure the screw thread is well lubricated before each mounting. We recommend the use of Molykote P-1900.

Special versions on request

ETP-EXPRESS R can be delivered in more corrosion resistant stainless steel and plated with Nickel.