UNIFORM COMPRESSION MATTERS

Represented by Yates & Company, Inc.

GRQ Engineered Clamp for Pharma, Biotech, Food, and Beverage Service

Jacoby-Tarbox offers a full line of GRQ Engineered Hygienic Clamps for uniform gasket compression to seal with minimized gasket intrusion, maximizing process integrity.

OPTIMIZED DESIGN

GRQ engineers used Finite Element Analysis (FEA) software to create the clamps and optimize both gasket load and clamp geometry, ensuring...

- **Uniform gasket loading** (compression)
- **Flexibility for challenging alignments**
- **Extending joint life**

UNIFORM GASKET LOADING

(compression)

- Discreet contact point, isolating energy on ID
- Seal the gasket with less torque
- Decrease chance of gasket intrusion
- Maximize gasket life

INSTALLATION FLEXIBILITY

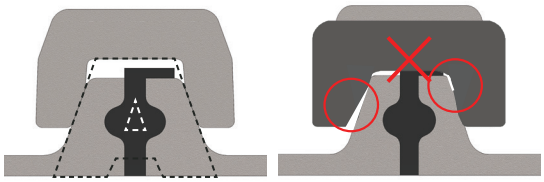
(less than perfect alignments)

- Large clamp channel Profile, nicknamed the “Block A Profile” and double-pin hinge seal out of tolerance joints
- Block A Profile clearance accepts “flanged”, or “lipped” gaskets without interfering with seal

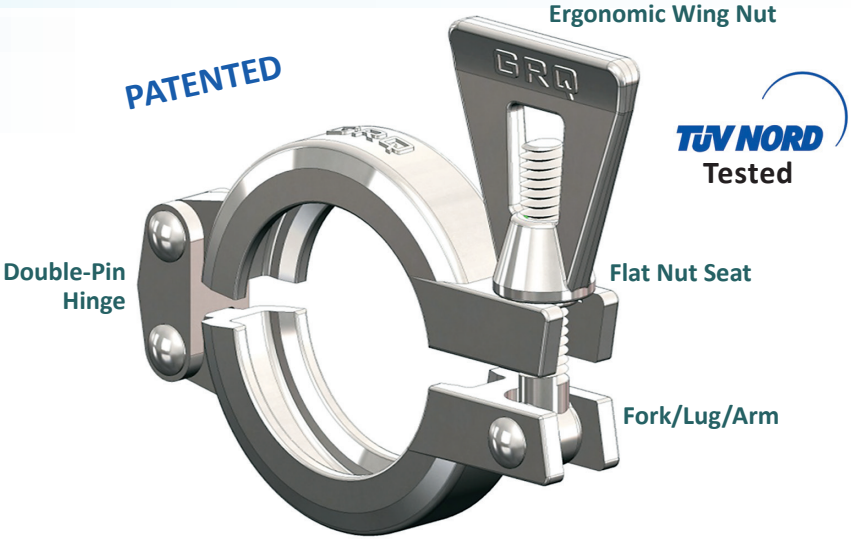
MAXIMIZE JOINT LIFE

- Less torque = less clamp stress (deflection)
- Uniform radial load = ***No*** point loads creating bending forces, decreasing potential for gasket intrusion or gapping
- Flat nut seat/pocket = load clamp without deforming clamp fork/lug/arm

Clamp Cross-Sections:



Block A Profile **Typical Profile**

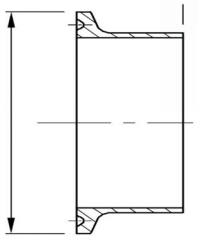


JACOBY-TARBOX®
GRQ ENGINEERED CLAMP

Problem	Root Cause	Solution	Feature
Leaking joint	Uneven load	Even load	Block A Clamp Profile
Leaking joint	Poor alignment	Open tolerance	Block A Clamp Profile Double-Pin Hinge
Leaking joint	Ferrule galling	Open tolerance	Block A Clamp Profile Flat nut seat/pocket
Leaking joint	Flanged gasket pinched in clamp	Open profile	Block A Clamp Profile and Flat nut seat/pocket
Process hold up	Extruded gasket	Less torque	Block A Clamp Profile
Bent clamp arm	Over-tightening	Less torque	Flat nut seat/pocket
Slip off nut at install	Poor nut shape	Ergonomic nut	Tapered easy grip nut

JACOBY•TARBOX®
HYGIENICS™

Specify Your Engineered Clamp



MATERIALS:	
Standard	**304SS (= O)**
(special order)	316SS (= S)

Note: Part number suffix in ( )'s

SIZES* Tube OD / Schedule / DN	FERRULE FLANGE OD IN	FERRULE FLANGE OD mm	PART NUMBER	WEIGHT Lb	WEIGHT Kg	MAX PRESSURE psig	MAX PRESSURE Bar
1/2" & 3/4" OD	0.984	25.00	**TGRQ-34-O**	0.33	0.15	725	50
ASME BPE 1" OD (DN 10/15/20)	1.339	34.00	**TGRQ-1A-O**	0.43	0.20	725	50
1" & 1-1/2" OD (1/2-3/4-1 SchV) / (DN 25/32/40)	1.984	50.39	**TGRQ-15-O**	0.51	0.23	725	50
2" OD (1-1/4&1-1/2 SchV) / (DN 50)	2.516	63.91	**TGRQ-2-O**	0.58	0.26	725	50
2.5" OD (2" Sch V)	3.047	77.39	**TGRQ-25-O**	0.65	0.29	725	50
3" OD (2-1/2" Sch V) / (DN 65)	3.579	90.91	**TGRQ-3-O**	0.72	0.33	580	40
3" Sch V (DN 80)	4.173	106.00	**TGRQ-3V-O**	0.79	0.36	435	30
4" OD (DN 100)	4.682	118.92	**TGRQ-4-O**	0.86	0.39	363	25
4" Sch V	5.118	130.00	**TGRQ-4V-O**	0.99	0.45	363	25
5" OD	5.685	144.39	**TGRQ-5-O**	1.11	0.50	363	25
5" Sch V (DN 125)	6.102	155.00	**TGRQ-5V-O**	1.40	0.63	363	25
6" OD	6.570	166.88	**TGRQ-6-O**	1.69	0.77	290	20
6" Sch V (DN 150)	7.205	183.00	**TGRQ-6V-O**	2.05	0.93	290	20
8" OD	8.563	217.50	**TGRQ-8-O**	2.41	1.09	218	15
8" Sch V (DN 200)	9.193	233.50	**TGRQ-8V-O**	2.83	1.28	218	15
10" OD	10.551	268.00	**TGRQ-10-O**	3.24	1.47	174	12
10 Sch V	11.264	286.10	**TGRQ-10V-O**	3.52	1.60	174	12
12" OD (DN 300)	12.571	319.30	**TGRQ-12-O**	3.80	1.72	145	10
12" Sch V	13.307	338.00	**TGRQ-12V-O**	4.10	1.86	131	9

(1) Use with: BPE, BS4825-3, BS6362 Sch 5, ISO 1127 S1 / 2037 / 2852 DIN32676-A/B/C, SMS 3017 and 3008 systems

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