

# George Fischer Zero Static Valve Type 319 and 319-HTR



The Type 319 Zero Static Valve is ideally suited to eliminate dead legs in ultrapure water systems.

- Ergonomic, “snap-on” handwheel – easy to remove
- Option: lockable handle
- Position indicator, improved robustness
- Can also be used in vacuum applications
- The HTR valve offers improved performance with wide temperature changes

## General

Manually operated diaphragm valve Type 319 with ends compatible for socket, Infrared or Bead and Crevice Free (BCF) fusion. Available in polypropylene and SYGEF-PVDF HP material in mm sizes.

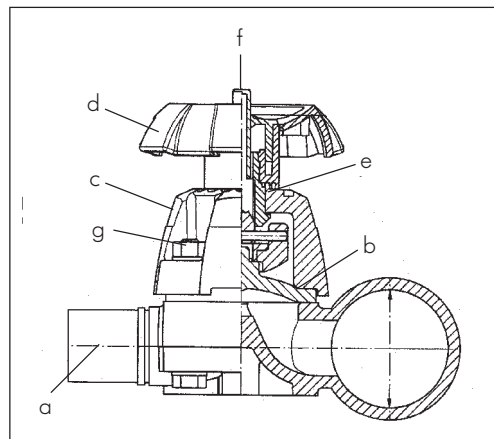
Special High Temperature Resistant (HTR) valves in SYGEF-PVDF HP are also available.

Shortest possible branch geometry. Compact construction requiring the least amount of space for installation. Outstanding internal surface characteristics.

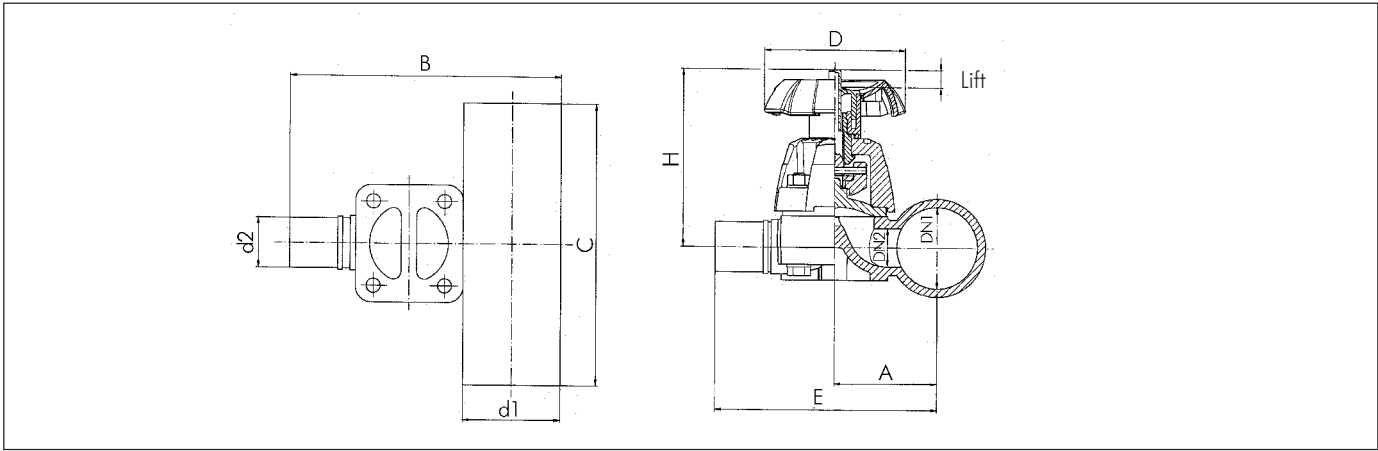
Also available pneumatically actuated, see +GF+ DIASTAR information.

## Technical Features

- SYGEF-PVDF HP; compatible with Infrared (IR) or Bead and Crevice Free (BCF) fusion.  
Polypropylene with IR/butt fusion ends.
- PTFE diaphragm with compression rib
- PP GF 30 (glass-fiber reinforced polypropylene) bonnet
- PP handwheel
- PE handwheel seal
- PE position indicator
- Stainless steel (304) assembly bolts



# Dimensions for Zero Static Valve Type 319/319-HTR



d1 - d2	Valve ass'y. size mm	Type*	A inch	B inch	E inch	C inch	D inch	H inch	lift inch	Weight lbs.	Closest inch size
20x20 mm	20	M	1.18	4.17	3.78	5.51	3.15	3.43	0.28	0.82	1/2" x 1/2"
25x20 mm	25	M	1.42	4.74	4.25	5.91	3.15	3.98	0.39	1.23	3/4" x 1/2"
25x25 mm	25	M	1.42	4.74	4.25	5.91	3.15	3.98	0.39	1.22	3/4" x 3/4"
32x20 mm	32	M	1.70	5.40	4.73	6.30	3.70	4.57	0.47	1.85	1" x 1/2"
32x25 mm	32	M	1.70	5.40	4.73	6.30	3.70	4.57	0.47	1.85	1" x 3/4"
32x32 mm	32	M	1.70	5.40	4.73	6.30	3.70	4.57	0.47	1.85	1" x 1"
40x20 mm	32	M	2.01	5.87	5.04	7.09	3.70	4.57	0.47	1.79	1 1/4" x 1/2"
40x25 mm	32	M	2.01	5.87	5.04	7.09	3.70	4.57	0.47	1.79	1 1/4" x 3/4"
40x32 mm	32	M	2.01	5.87	5.04	7.09	3.70	4.57	0.47	1.79	1 1/4" x 1"
40x40 mm	40	M	2.20	6.83	6.00	7.48	4.61	5.00	0.63	2.67	1 1/4" x 1 1/4"
50x20 mm	32	M	2.22	6.24	5.26	7.09	3.70	4.57	0.47	1.96	1 1/2" x 1/2"
50x25 mm	32	M	2.22	6.24	5.26	7.09	3.70	4.57	0.47	1.96	1 1/2" x 3/4"
50x32 mm	32	M	2.22	6.24	5.26	7.09	3.70	4.57	0.47	1.94	1 1/2" x 1"
50x40 mm	50	M	2.60	7.66	6.63	7.87	4.61	5.47	0.75	3.71	1 1/2" x 1 1/4"
50x50 mm	50	M	2.60	7.66	6.63	7.87	4.61	5.47	0.75	3.72	1 1/2" x 1 1/2"
63x20 mm	32	M	2.62	6.89	5.65	7.09	3.70	4.57	0.47	2.10	2" x 1/2"
63x25 mm	32	M	2.62	6.89	5.65	7.09	3.70	4.57	0.47	2.09	2" x 3/4"
63x32 mm	32	M	2.62	6.89	5.65	7.09	3.70	4.57	0.47	2.09	2" x 1"
63x40 mm	63	M	3.15	8.84	7.56	8.66	5.98	6.77	1.06	5.73	2" x 1 1/4"
63x50 mm	63	M	3.15	8.84	7.56	8.66	5.98	6.77	1.06	5.73	2" x 1 1/2"
63x63 mm	63	M	3.15	8.84	7.56	8.66	5.98	6.77	1.06	5.73	2" x 2"
75x40 mm	40	M	3.07	8.01	6.53	7.48	4.61	4.96	0.63	2.91	2 1/2" x 1 1/4"
75x50 mm	63	M	3.39	9.27	7.80	8.66	5.98	6.77	1.06	5.98	2 1/2" x 1 1/2"
75x63 mm	63	M	3.39	9.27	7.80	8.66	5.98	6.77	1.06	5.98	2 1/2" x 2"
90x20 mm	32	M	3.21	8.01	6.24	6.30	3.70	4.57	0.47	2.60	3" x 1/2"
90x25 mm	32	M	3.21	8.01	6.24	6.30	3.70	4.57	0.47	2.60	3" x 3/4"
90x32 mm	32	M	3.21	8.01	6.24	6.30	3.70	4.57	0.47	2.60	3" x 1"
90x50 mm	63	M	3.75	9.93	8.16	8.66	5.98	6.77	1.10	6.55	3" x 1 1/2"
90x63 mm	63	M	3.75	9.93	8.16	8.66	5.98	6.77	1.10	6.55	3" x 2"
110x20 mm	32	M	3.70	8.90	6.73	6.30	3.70	4.57	0.47	2.89	4" x 1/2"
110x25 mm	32	M	3.70	8.90	6.73	6.30	3.70	4.57	0.47	2.88	4" x 3/4"
110x32 mm	32	M	3.70	8.90	6.73	6.30	3.70	4.57	0.47	2.87	4" x 1"
110x50 mm	63	M	4.25	10.83	8.66	8.66	5.98	6.77	1.10	7.19	4" x 1 1/2"
110x63 mm	63	M	4.25	10.83	8.66	8.66	5.98	6.77	1.10	7.17	4" x 2"

\* Type M = molded body configuration

## Part Numbers for Zero Static Valve Type 319 and 319-HTR



with IR/butt and BCF  
fusion ends

## SYGEF-PVDF HP

d mm	psi	Diaphragm material: PTFE with EPDM supp. diaphragm		Closest inch size
		Type 319	Type 319-HTR	
20x20	150	175 319 301	175 319 601	1/2x1/2
25x20	150	175 319 303	175 319 603	3/4x1/2
25x25	150	175 319 304	175 319 604	3/4x3/4
32x20	150	175 319 307	175 319 607	1x1/2
32x25	150	175 319 308	175 319 608	1x3/4
32x32	150	175 319 309	175 319 609	1x1
40x20	150	175 319 312	175 319 612	1 1/4x1/2
40x25	150	175 319 313	175 319 613	1 1/4x3/4
40x32	150	175 319 314	175 319 614	1 1/4x1
40x40	150	175 319 315	175 319 615	1 1/4x1 1/4
50x20	150	175 319 318	175 319 618	1 1/2x1/2
50x25	150	175 319 319	175 319 619	1 1/2x3/4
50x32	150	175 319 320	175 319 620	1 1/2x1
50x40	150	175 319 321	175 319 621	1 1/2x1 1/4
50x50	150	175 319 322	175 319 622	1 1/2x1 1/2
63x20	150	175 319 325	175 319 625	2x1/2
63x25	150	175 319 326	175 319 626	2x3/4
63x32	150	175 319 327	175 319 627	2x1
63x40	150	175 319 328	175 319 628	2x1 1/4
63x50	150	175 319 329	175 319 629	2x1 1/2
63x63	150	175 319 330	175 319 630	2x2
75x40	150	175 319 336	175 319 636	2 1/2x1 1/4
75x50	150	175 319 337	175 319 637	2 1/2x1 1/2
75x63	150	175 319 338	175 319 638	2 1/2x2
90x20	150	175 319 341	175 319 641	3x1/2
90x25	150	175 319 342	175 319 642	3x3/4
90x32	150	175 319 343	175 319 643	3x1
90x50	150	175 319 345	175 319 645	3x1 1/2
90x63	150	175 319 346	175 319 646	3x2
110x20	150	175 319 351	175 319 651	4x1/2
110x25	150	175 319 352	175 319 652	4x3/4
110x32	150	175 319 353	175 319 653	4x1
110x50	150	175 319 355	175 319 655	4x1 1/2
110x63	150	175 319 356	175 319 656	4x2



## Part Numbers for Zero Static Valve Type 319

with IR/butt fusion ends

\*consult factory for availability date

		Polypropylene (PP-H)*	Natural Polypropylene (PP-n)*
d mm	psi	Diaphragm material: PTFE with EPDM supp. diaphragm only	Diaphragm material: EPDM only
20x20	150	<b>167 319 301</b>	<b>168 319 401</b>
25x20	150	<b>167 319 303</b>	<b>168 319 403</b>
25x25	150	<b>167 319 304</b>	<b>168 319 404</b>
32x20	150	<b>167 319 307</b>	<b>168 319 407</b>
32x25	150	<b>167 319 308</b>	<b>168 319 408</b>
32x32	150	<b>167 319 309</b>	<b>168 319 409</b>
40x20	150	<b>167 319 312</b>	<b>168 319 412</b>
50x20	150	<b>167 319 318</b>	<b>168 319 418</b>
50x25	150	<b>167 319 319</b>	<b>168 319 419</b>
50x32	150	<b>167 319 320</b>	<b>168 319 420</b>
63x20	150	<b>167 319 325</b>	<b>168 319 425</b>
63x25	150	<b>167 319 326</b>	<b>168 319 426</b>
63x32	150	<b>167 319 327</b>	<b>168 319 427</b>

1/2 x 1/2  
3/4 x 1/2  
3/4 x 3/4

1 x 1/2  
1 x 3/4  
1 x 1

1 1/4 x 1/2

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2 x 1/2  
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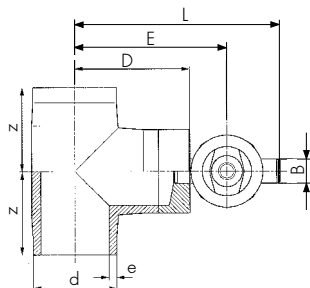
## Reducing Tee/Valve Assembly

Beta PP, IR Butt

PP-n IR/BCF

d mm	psi	LT	Part Number PTFE Diaphragm	SP	Part Number EPDM Diaphragm	SP	Closest inch size
40 x 25	150	20	<b>727 993 209</b>	1	<b>728 993 1209E</b>	1	1 1/4 x 3/4
40 x 32	150	20	<b>727 993 210</b>	1	<b>728 993 1210E</b>	1	1 1/4 x 1
50 x 40	150	20	<b>727 993 215</b>	1	<b>728 993 1215E</b>	1	1 1/2 x 1 1/4
63 x 40	150	20	<b>727 993 220</b>	1	<b>728 993 1220E</b>	1	2 x 1 1/4
63 x 50	150	20	<b>727 993 221</b>	1	<b>728 993 1221E</b>	1	2 x 1 1/2

## Reducing Tee/Valve Dimensions



mm	d mm	B mm	D inch	Z inch	e mm	E inch	L inch	Closest inch size
40 x 25	40	25	2.60	2.01	3.7	4.88	7.72	1 1/4 x 3/4
40 x 32	40	32	2.60	2.01	3.7	5.00	8.03	1 1/4 x 1
50 x 40	50	40	3.03	2.28	4.6	5.75	9.18	1 1/2 x 1 1/4
63 x 40	63	40	3.35	2.60	5.8	6.06	9.49	2 x 1 1/4
63 x 50	63	50	3.47	2.60	5.8	6.46	10.28	2 x 1 1/2

## Product Specifications

### Zero Static Valve Type 319 SYGEF-PVDF HP

High purity PVDF zero static valves with primary sizes 20 mm (1/2") through 110 mm (4") and reductions down to 20 mm shall be Type 319 Zero Static Valves as manufactured by George Fischer. All Zero Static valves shall be compatible with the George Fischer Bead and Crevice Free (BCF) and Infrared (IR) fusion technology and molded from virgin, unpigmented PVDF material. All Zero Static Valves shall be weir style with PTFE diaphragm seals backed with EPDM. All valves shall be precleaned for ultrapure service and double bagged in Nylon 6/PE packaging.

### Zero Static Valve Type 319 Beta (β) Polypropylene

Beta (β) Polypropylene Zero Static Valves with primary sizes 20mm (~1/2") through 63mm (~2") and reductions down to 20mm shall be Type 319 Zero Static Valves as manufactured by George Fischer, Inc. All Beta (β) Polypropylene Zero Static Valves shall be compatible with the George Fischer Infrared (IR) fusion technology and molded from Beta nucleated, pigmented, homopolymer polypropylene. All Zero Static Valves shall be weir style with PTFE diaphragm seals backed with EPDM.

### Zero Static Valve Type 319-HTR SYGEF-PVDF HP

High temperature resistant PVDF zero static valves with primary sizes 20 mm (1/2") through 110 mm (4") and reductions down to 20 mm (1/2") shall be Type 319-HTR Zero Static Valves as manufactured by George Fischer. All valves shall be compatible with the George Fischer Bead and Crevice Free (BCF) and Infrared (IR) fusion technology and molded from virgin, unpigmented PVDF material. All Zero Static Valves shall be weir style with PTFE diaphragm seals backed with EPDM and supported by a secondary O-ring seal made of white FPM. All valves shall be precleaned for ultrapure service and double bagged in Nylon 6/PE packaging.

### Zero Static Valve Type 319 PP-n Natural Polypropylene

PP-n Natural Polypropylene Zero Static Valves with primary sizes 20mm (~1/2") through 63mm (~2") and reductions down to 20mm shall be Type 319 Zero Static Valves as manufactured by George Fischer, Inc. All PP-n Natural Polypropylene Zero Static Valves shall be compatible with the George Fischer Bead and Crevice Free (BCF) and Infrared (IR) fusion technology and molded from un-pigmented, copolymer natural polypropylene. All Zero Static Valves shall be weir style with EPDM diaphragm seals.