

# Snubbers Type 30

## Snubbers

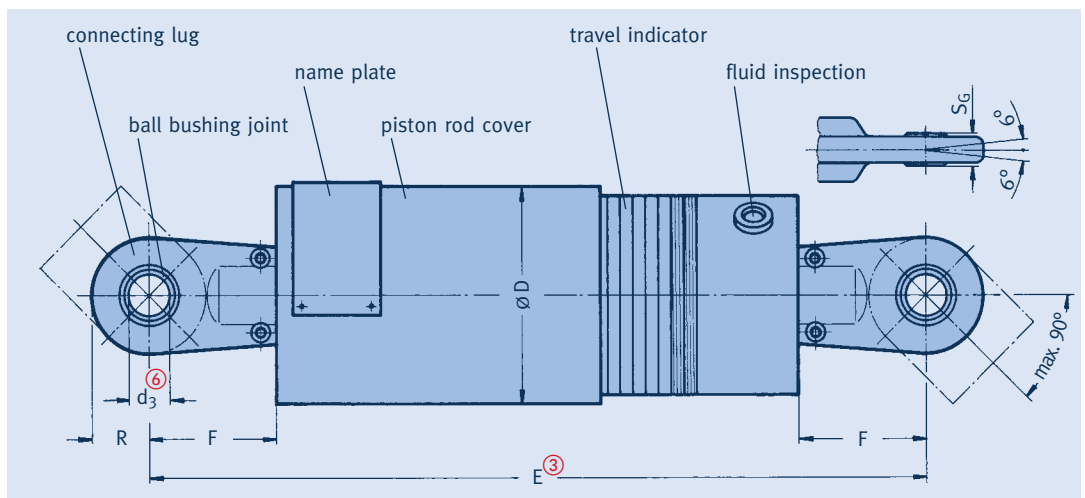
### type 30 18 16 to 30 03 12

Serial standard design.

Delivery from stock.

Only corrosion-resistant materials are used.

The connecting lugs attached by a connection thread (material P250GH, C45E+QT, S355J2, A668CL, C/F, SA299) are galvanized.



type	nom. load [kN] ①	emergency Level C ②	stroke ⑤	ØD	Ød <sub>3</sub> ⑥	E <sub>min</sub> ③	E <sub>max</sub> ③	F ④	R	S <sub>G</sub>	weight [kg]
30 18 16	3	4.0	100	54	10	220	320	18	15	9	1.9
30 38 16	8	10.6	100	70	12	315	415	50	20	10	4.3
30 39 16	8	10.6	200	70	12	410	610	50	20	10	5.7
30 42 16	18	23.9	150	85	15	395	545	58	22.5	12	8.3
30 43 16	18	23.9	300	85	15	545	845	58	22.5	12	12
30 52 13	46	61	150	135	20	445	595	65	30	16	20
30 53 13	46	61	300	135	20	595	895	65	30	16	29
30 62 16	100	141	150	170	30	535	685	100	45	22	37
30 63 16	100	141	300	170	30	685	985	100	45	22	51
30 72 16	200	267	150	200	50	615	765	130	60	35	61
30 73 16	200	267	300	200	50	765	1065	130	60	35	78
30 82 16	350	472	150	270	60	730	880	165	75	44	122
30 83 16	350	472	300	270	60	880	1180	165	75	44	147
30 92 13	550	735	150	300	70	760	910	165	105	49	175
30 93 13	550	735	300	300	70	910	1210	165	105	49	207
30 02 12	1000	1335	150	390	100	935	1085	240	147	70	390
30 03 12	1000	1335	300	390	100	1085	1385	240	147	70	460

## Order details:

snubber type 30 ...  
with 2 weld-on brackets  
type 35 ...  
marking: ...

- ① See technical specifications, table: 'permissible loads' (p. 0.6) and 'welding of weld-on brackets' (p. 3.22).
- ② Usual design load for earthquakes and similar load cases. See also technical specifications on p. 0.6.
- ③ E<sub>min</sub> = piston rod retracted  
E<sub>max</sub> = piston rod extended  
To bridge greater installation lengths, extensions type 33 (p. 3.21) can be used.
- ④ On replacement of other makes, the connection dimensions such as pin diameters and lug lengths can be adapted to the connection designs already existing in the plant.
- ⑤ If required, snubbers with longer strokes can be supplied.
- ⑥ Connection possibilities: see bolt diameters of weld-on bracket type 35 or dynamic clamps in product group 3.

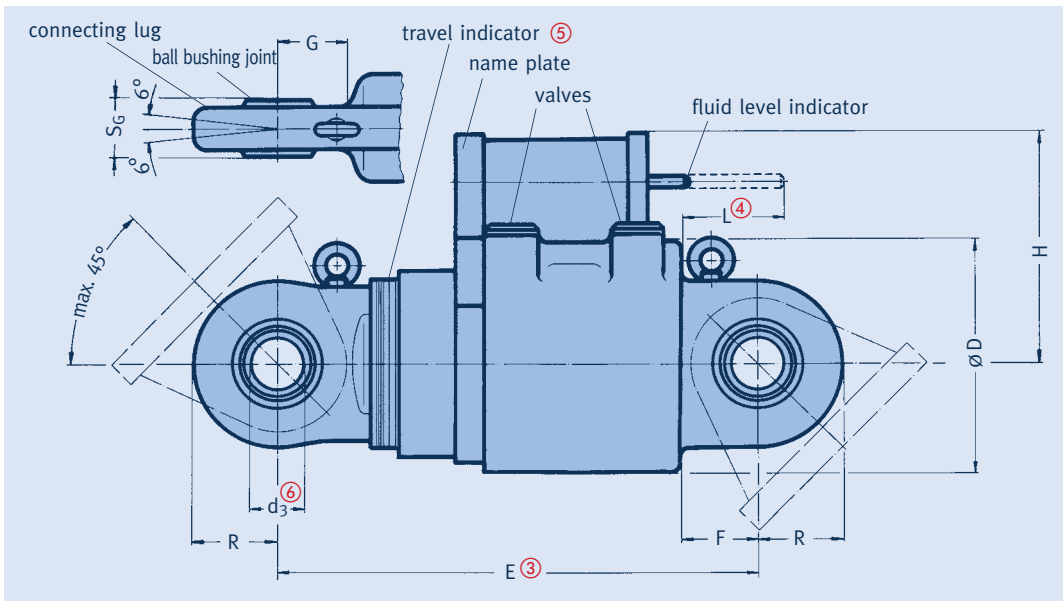
## Snubbers Type 31



### Snubbers type 31 98 16 to 31 58 16

Snubbers type 31 are specially conceived for the absorption of particularly heavy loads. They are mainly used in nuclear installations to secure steam generators and reactor codant pumps. Due to the normally very restricted installation space they are typically custom-built for the given conditions. The table on this page therefore serves as general orientation for initial planning.

The body and connecting lugs are made of high-tensile stainless steel castings.



type	nom. load [kN] ①	emergency Level C ②	stroke ⑤	ØD	Ød <sub>3</sub> ⑥	E ③ min	E ③ max	F	G	H	L <sub>max</sub> ④	R	S <sub>G</sub>	weight [kg]
31 98 16	550	735	100	240	70	620	720	95	90	310	115	105	49	152
31 99 16	550	735	200	240	70	735	935	95	90	310	145	105	49	181
31 08 16	1000	1335	100	330	100	765	865	120	110	385	145	140	70	285
31 09 16	1000	1335	200	330	100	880	1080	120	110	385	200	140	70	338
31 28 16	2000	2660	100	440	120	870	970	160	155	450	150	160	85	648
31 38 16	3000	4000	100	540	140	1020	1120	190	180	620	100	200	90	968
31 48 16	4000	5320	100	580	160	1050	1150	205	200	585	255	245	105	1300
31 58 16	5000	6650	100	630	180	1140	1240	230	220	670	205	290	105	1750

**Order details:**  
snubber type 31 ...  
marking: ...

① See technical specifications, table: 'permissible loads' (p. 0.6) and 'welding of weld-on brackets' (p. 3.22).

② Usual design load for earthquakes and similar load cases. See also technical specifications on p. 0.6.

③ E<sub>min</sub> = piston rod retracted  
E<sub>max</sub> = piston rod extended

④ L<sub>max</sub> at 80°C

⑤ Design of travel indicator for travel range 8 (100mm stroke).

⑥ Connection possibilities: see bolt diameters of weld-on brackets type 35 or dynamic clamps in product group 3



Snubber type 31 in special configuration



*LISEGA snubbers type 31 are fitted with exchangeable valves for in-service tests on site.*