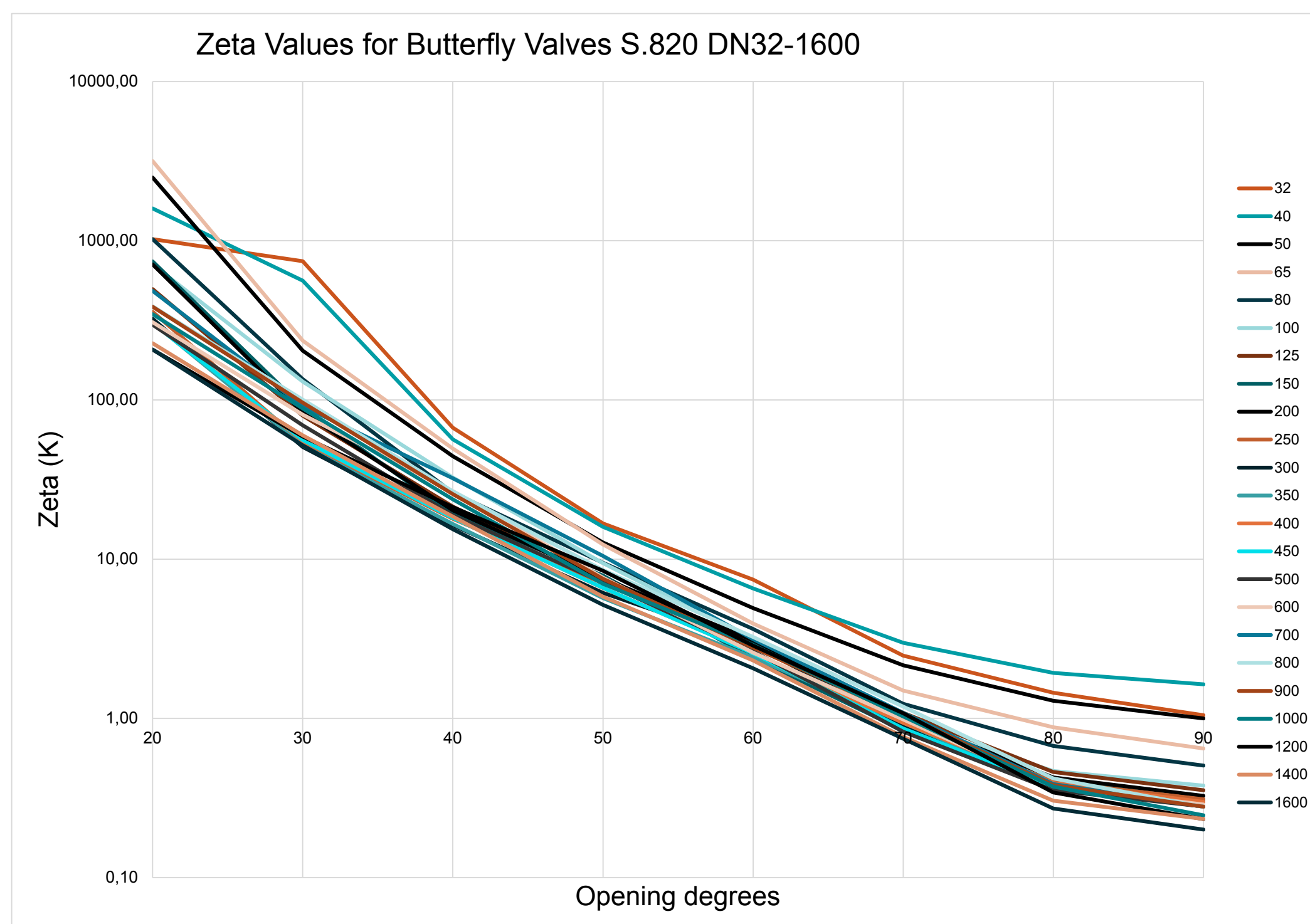


# ZETA VALUES FOR BUTTERFLY VALVES SERIES 820

Opening angle (°)	DN 32	DN 40	DN 50	DN 65	DN 80	DN 100	DN 125	DN 150	DN 200	DN 250	DN 300	DN 350	DN 400	DN 450	DN 500	DN 600	DN 700	DN 800	DN 900	DN 1000	DN 1200	DN 1400	DN 1600
20	1021,87	1596,68	2494,81	3166,86	1021,87	709,64	497,21	742,26	709,64	357,96	323,33	305,61	306,81	302,80	296,65	307,75	483,98	386,98	384,79	345,41	206,93	226,84	207,58
30	744,11	560,70	203,66	235,55	135,12	130,34	79,55	89,56	83,42	53,95	50,71	51,82	55,27	56,13	69,30	80,83	91,22	100,58	96,20	88,40	58,86	59,89	51,82
40	66,97	56,57	44,35	49,48	26,16	32,59	21,39	19,23	20,27	17,92	16,33	16,64	18,17	18,14	18,86	26,78	32,21	26,69	25,58	23,75	21,19	18,52	15,42
50	16,74	15,97	12,73	12,37	9,49	9,45	7,37	7,89	7,59	7,06	6,15	5,70	6,59	6,60	7,13	7,65	10,47	8,54	7,52	7,00	8,45	5,81	5,17
60	7,44	6,54	4,93	3,94	3,64	3,15	3,01	2,40	3,08	2,85	2,93	2,41	2,58	2,57	2,64	2,59	3,14	3,24	2,78	2,89	2,86	2,31	2,06
70	2,48	2,99	2,16	1,50	1,24	0,95	1,08	0,84	1,00	0,96	0,90	0,94	0,94	0,87	0,82	0,98	1,08	1,18	1,06	1,03	1,08	0,77	0,75
80	1,45	1,93	1,29	0,88	0,67	0,47	0,46	0,41	0,43	0,40	0,36	0,37	0,39	0,37	0,35	0,37	0,39	0,42	0,38	0,37	0,34	0,30	0,27
90	1,05	1,63	1,00	0,65	0,50	0,38	0,35	0,31	0,33	0,31	0,28	0,28	0,30	0,28	0,28	0,29	0,28	0,28	0,28	0,25	0,23	0,23	0,20



**Definitions / formulas:**

**Kv-value:** Actual flow of water (m<sup>3</sup>/hr) creating pressure loss of 1 bar.

**Pressure loss coefficient Zeta (K) value:** Ratio of static to dynamic pressure loss.

$$\text{Zeta (K)} = \text{Diff pressure} / (500 \times V^2)$$

Diff pressure (Pa)

V: Water flow velocity (m/sec)

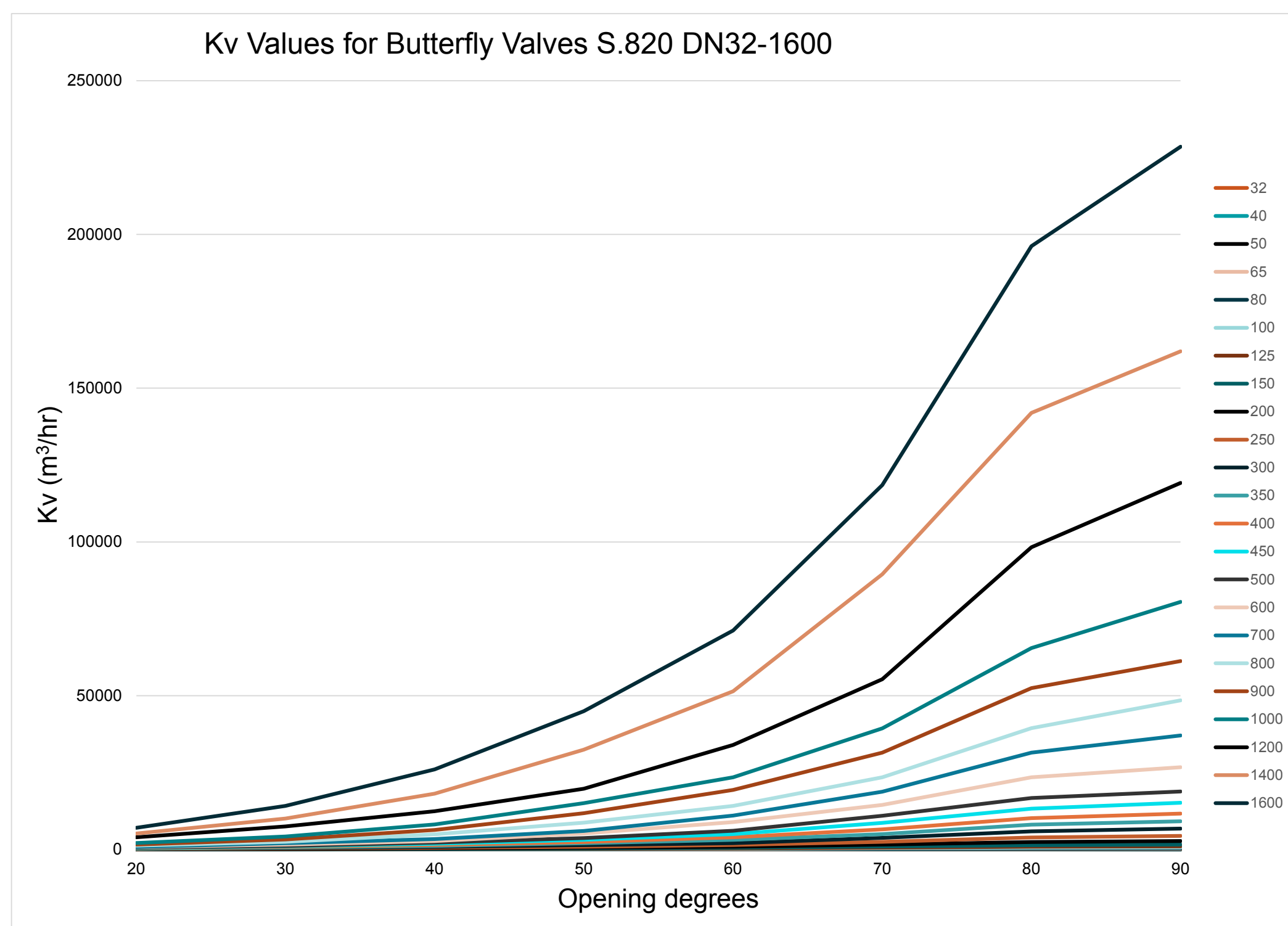
$$\text{Actual diff pressure (bar)} = (Q / Kv)^2$$

Q: Actual Water flow (m<sup>3</sup>/hr)

*NOTE: Hydraulic figures are based on calculations. Value uncertainty as per ref EN1267*

# KV VALUES FOR BUTTERFLY VALVES SERIES 820

Opening angle (°)	DN 32	DN 40	DN 50	DN 65	DN 80	DN 100	DN 125	DN 150	DN 200	DN 250	DN 300	DN 350	DN 400	DN 450	DN 500	DN 600	DN 700	DN 800	DN 900	DN 1000	DN 1200	DN 1400	DN 1600
20	1	2	2	3	8	15	28	33	60	132	200	280	365	465	580	820	890	1300	1650	2150	4000	5200	7100
30	2	3	7	11	22	35	70	95	175	340	505	680	860	1080	1200	1600	2050	2550	3300	4250	7500	10120	14210
40	5	9	15	24	50	70	135	205	355	590	890	1200	1500	1900	2300	2780	3450	4950	6400	8200	12500	18200	26050
50	10	16	28	48	83	130	230	320	580	940	1450	2050	2490	3150	3740	5200	6050	8750	11800	15100	19800	32500	45000
60	15	25	45	85	134	225	360	580	910	1480	2100	3150	3980	5050	6150	8940	11050	14200	19400	23500	34000	51500	71200
70	26	37	68	138	230	410	600	980	1600	2550	3800	5050	6600	8700	11000	14500	18800	23500	31500	39400	55400	89500	118500
80	34	46	88	180	312	585	920	1410	2450	3950	5960	8100	10200	13300	16800	23500	31500	39500	52500	65500	98300	142000	196200
90	40	50	100	210	360	650	1050	1620	2800	4480	6800	9200	11700	15200	18900	26800	37100	48500	61300	80500	119200	162000	228500



### Definitions / formulas:

**Kv-value:** Actual flow of water (m³/hr) creating pressure loss of 1 bar.

**Pressure loss coefficient Zeta (K) value:** Ratio of static to dynamic pressure loss.

$$\text{Zeta (K)} = \text{Diff pressure} / (500 \times V^2)$$

Diff pressure (Pa)

V: Water flow velocity (m/sec)

$$\text{Actual diff pressure (bar)} = (Q / Kv)^2$$

Q: Actual Water flow (m³/hr)

*NOTE: Hydraulic figures are based on calculations. Value uncertainty as per ref EN1267*