

BARIQ 4000 | PRODUCT OVERVIEW



PRODUCT RANGE

DN65-DN400

PN16

MAX. WORKING PRESSURE

16 bar

TEMPERATURE RANGE

-10 to +120 °C

BODY MATERIAL

EN-GJS-400-15

APPLICATION

HVAC & refrigeration

PRODUCT DESCRIPTION

The BARIQ 4000 is a double regulating and commissioning valve for precise flow regulation and balancing in HVAC and heating systems. A ductile iron body, graduated handwheel and integrated P/T test points support accurate presetting and flow verification.

COMPATIBLE MEDIA

Neutral fluids · Industrial water · Glycol

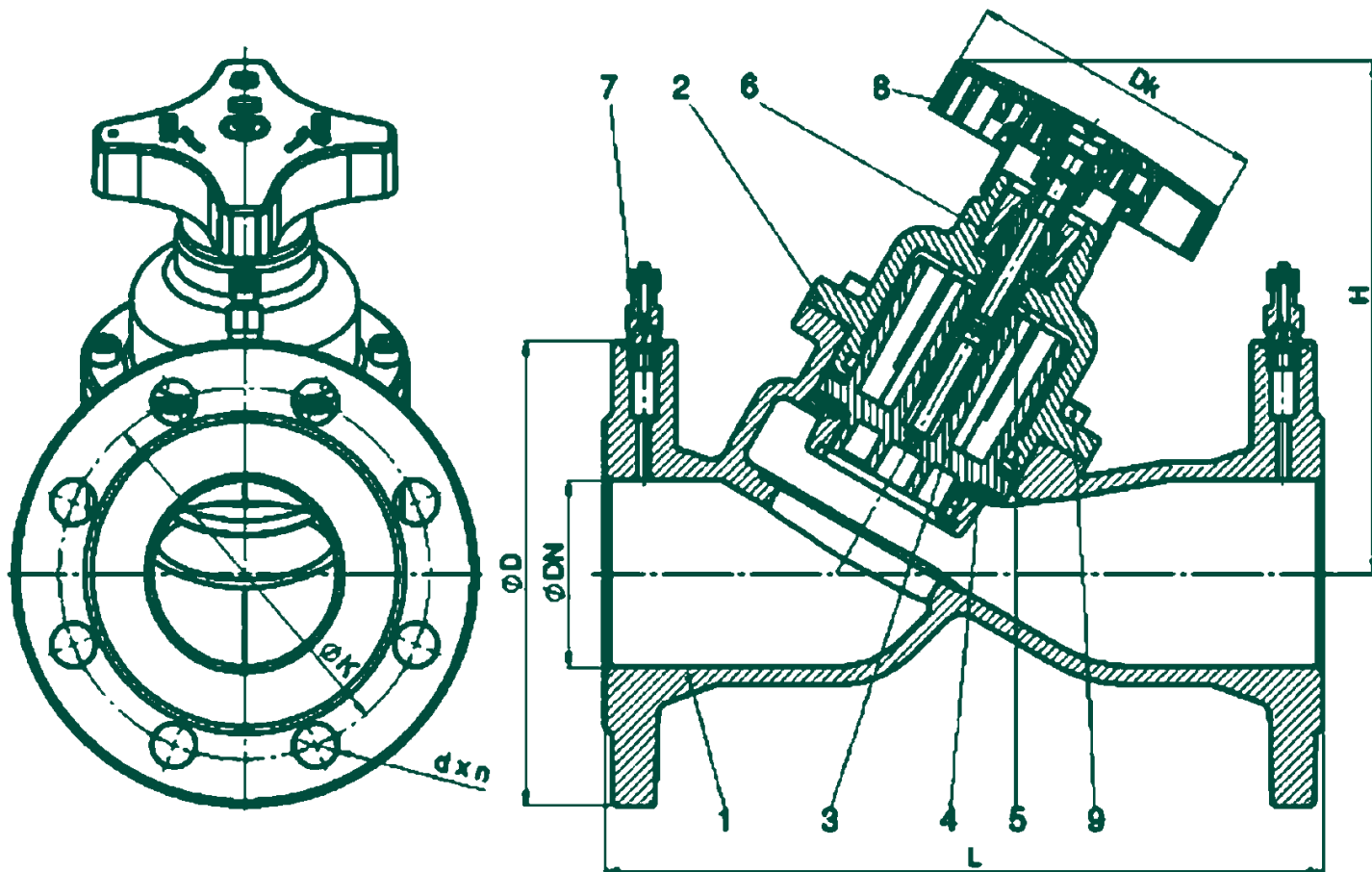
DESIGN HIGHLIGHTS

- High-accuracy flow regulation
- Integrated P/T test points
- Bi-directional installation
- Graduated presetting scale
- Wear-resistant internals

TEST PRESSURES

BODY 24 bar | SEAT 17.6 bar

FRONT ELEVATION & SECTIONAL VIEW



L Face-to-face H Overall height Dk Handwheel diameter

DIMENSIONS, FLOW COEFFICIENT & WEIGHT

DN (mm)	65	80	100	125	150	200	250	300	350	400
DN (inch)	2½	3	4	5	6	8	10	12	14	16
L (mm)	290	310	350	400	480	600	730	850	980	1100
H (mm)	220	220	240	260	285	480	525	535	650	750
Dk (mm)	130	130	130	130	130	310	310	310	350	350
Kvs (m³/h)	88.8	113.4	184.7	285.1	390.2	710.0	1187.5	1504.1	2215.0	3262.2
Weight (kg)	13.5	17.8	22.7	34	48.5	114.5	159	210.5	375	510



MATERIALS & STANDARDS

COMPONENT	MATERIAL	STANDARD
Body	Ductile iron GGG40 / EN-GJS-400-15	EN 1563 / ASTM A536
Bonnet	Ductile iron GGG40 / EN-GJS-400-15	EN 1563 / ASTM A536
Disc	Ductile iron with EPDM coating	EN 1563 / ASTM A536
Stem	Stainless steel AISI 304/316	ASTM A276
Seat	EPDM (potable water grade)	EN 681-1
Fasteners	Stainless steel A2/A4	ISO 3506

PRESSURE & TEMPERATURE

Nominal pressure: PN16

Body test: $1.5 \times \text{PN} = 24 \text{ bar}$

Seat test: $1.1 \times \text{PN} = 17.6 \text{ bar}$

Temperature: $-10 \text{ }^{\circ}\text{C}$ to $+120 \text{ }^{\circ}\text{C}$

CORROSION PROTECTION

Fusion-bonded epoxy coating, minimum thickness $250 \text{ }\mu\text{m}$, internally and externally. RAL color as specified.

In compliance with WRAS/GSK coating standards.

DESIGN & SERVICE FEATURES

● DURABLE CONSTRUCTION

High-strength EN-GJS-400-15 ductile iron provides pressure and impact resistance.

● SERVICEABILITY

Wear- and corrosion-resistant internals allow disassembly and servicing.

● FLEXIBLE OPERATION

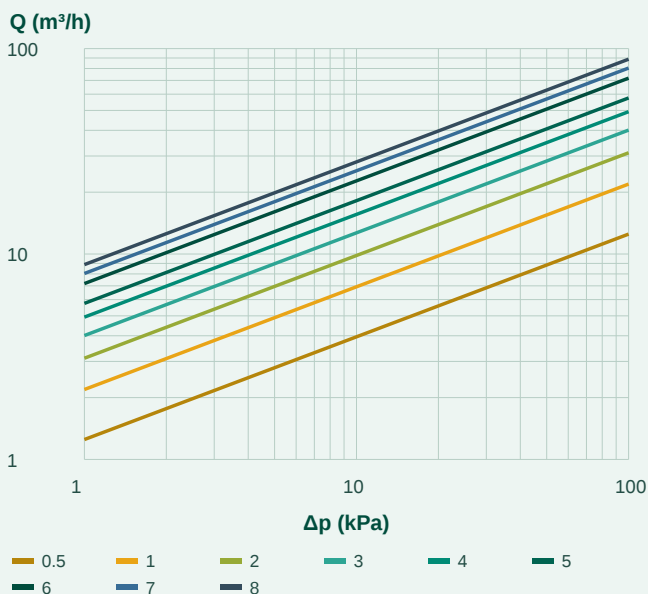
Broad flow and differential-pressure range; suitable for either flow direction.

● STANDARD COMPLIANCE

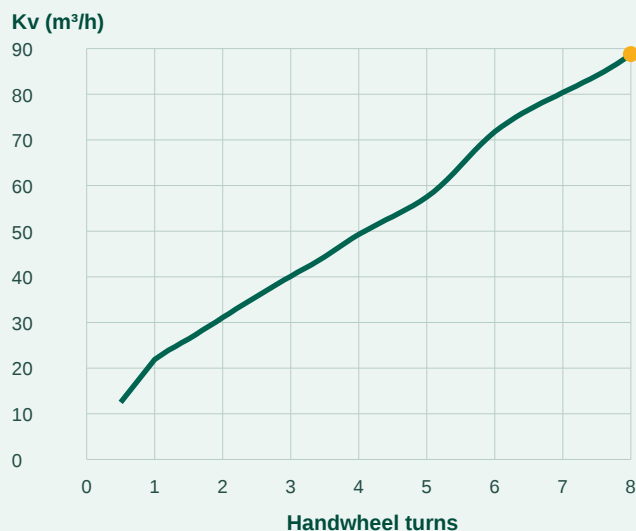
Manufactured and tested to EN 12266-1, BS 7350 and EN 1092-2.

DN65 | Kvs 88.8 m³/h | FULL OPEN 8 TURNS

FLOW / DIFFERENTIAL PRESSURE



PRESETTING / FLOW COEFFICIENT

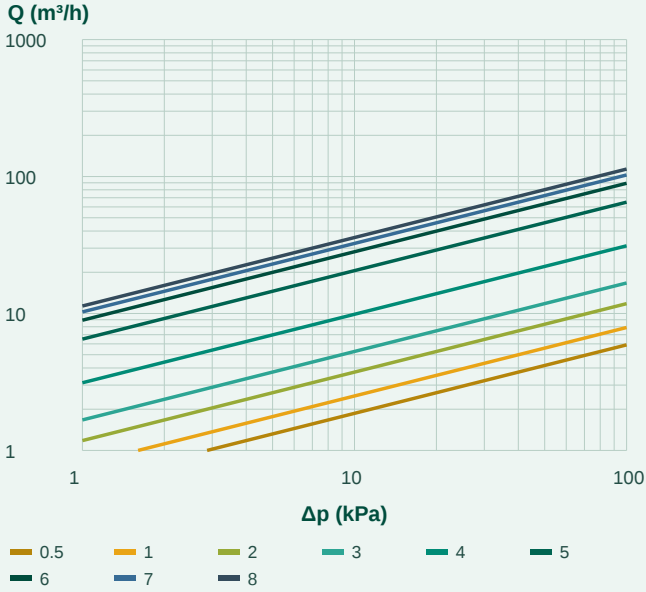


HANDWHEEL PRESETTING & Kv VALUES

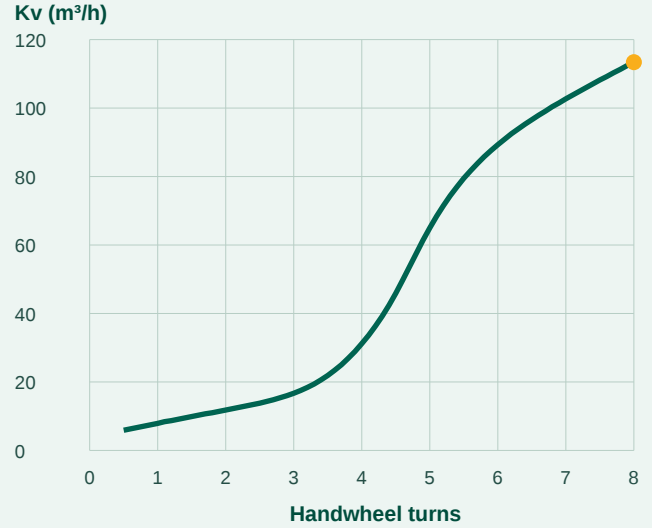
TURNS	Kv (m³/h)	TURNS	Kv (m³/h)	TURNS	Kv (m³/h)
0.5	12.5	3.3	42.6	5.7	67.6
1.0	21.9	3.4	43.5	5.8	69.1
1.1	22.9	3.5	44.4	5.9	70.5
1.2	23.9	3.6	45.4	6.0	71.8
1.3	24.7	3.7	46.4	6.1	72.9
1.4	25.6	3.8	47.4	6.2	73.9
1.5	26.4	3.9	48.4	6.3	74.9
1.6	27.3	4.0	49.3	6.4	75.8
1.7	28.3	4.1	50.1	6.5	76.6
1.8	29.2	4.2	50.9	6.6	77.4
1.9	30.1	4.3	51.7	6.7	78.2
2.0	31.1	4.4	52.5	6.8	78.9
2.1	32.0	4.5	53.2	6.9	79.6
2.2	33.0	4.6	54.0	7.0	80.4
2.3	33.9	4.7	54.8	7.1	81.1
2.4	34.8	4.8	55.6	7.2	81.8
2.5	35.7	4.9	56.5	7.3	82.6
2.6	36.6	5.0	57.5	7.4	83.3
2.7	37.5	5.1	58.6	7.5	84.1
2.8	38.4	5.2	59.9	7.6	84.9
2.9	39.3	5.3	61.3	7.7	85.8
3.0	40.1	5.4	62.8	7.8	86.7
3.1	41.0	5.5	64.4	7.9	87.7
3.2	41.8	5.6	66.0	8.0	88.8

DN80 | Kvs 113.4 m³/h | FULL OPEN 8 TURNS

FLOW / DIFFERENTIAL PRESSURE



PRESETTING / FLOW COEFFICIENT

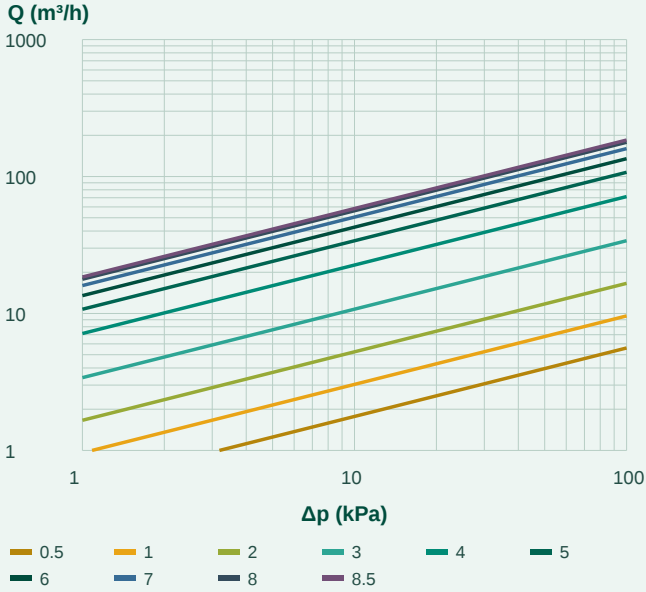


HANDWHEEL PRESETTING & Kv VALUES

TURNS	Kv (m³/h)	TURNS	Kv (m³/h)	TURNS	Kv (m³/h)
0.5	5.9	3.3	19.4	5.7	83.8
1.0	7.9	3.4	20.6	5.8	85.8
1.1	8.4	3.5	21.9	5.9	87.6
1.2	8.7	3.6	23.4	6.0	89.3
1.3	9.1	3.7	25.0	6.1	90.9
1.4	9.5	3.8	26.9	6.2	92.5
1.5	9.9	3.9	28.9	6.3	93.9
1.6	10.3	4.0	31.2	6.4	95.3
1.7	10.7	4.1	33.6	6.5	96.6
1.8	11.0	4.2	36.3	6.6	97.9
1.9	11.4	4.3	39.2	6.7	99.1
2.0	11.8	4.4	42.4	6.8	100.4
2.1	12.2	4.5	45.9	6.9	101.5
2.2	12.6	4.6	49.7	7.0	102.7
2.3	13.0	4.7	53.6	7.1	103.8
2.4	13.4	4.8	57.5	7.2	104.9
2.5	13.8	4.9	61.4	7.3	106.0
2.6	14.3	5.0	65.0	7.4	107.1
2.7	14.8	5.1	68.4	7.5	108.2
2.8	15.4	5.2	71.5	7.6	109.2
2.9	16.0	5.3	74.4	7.7	110.3
3.0	16.7	5.4	77.0	7.8	111.3
3.1	17.5	5.5	79.5	7.9	112.4
3.2	18.4	5.6	81.7	8.0	113.4

DN100 | Kvs 184.7 m³/h | FULL OPEN 8.5 TURNS

FLOW / DIFFERENTIAL PRESSURE



PRESETTING / FLOW COEFFICIENT

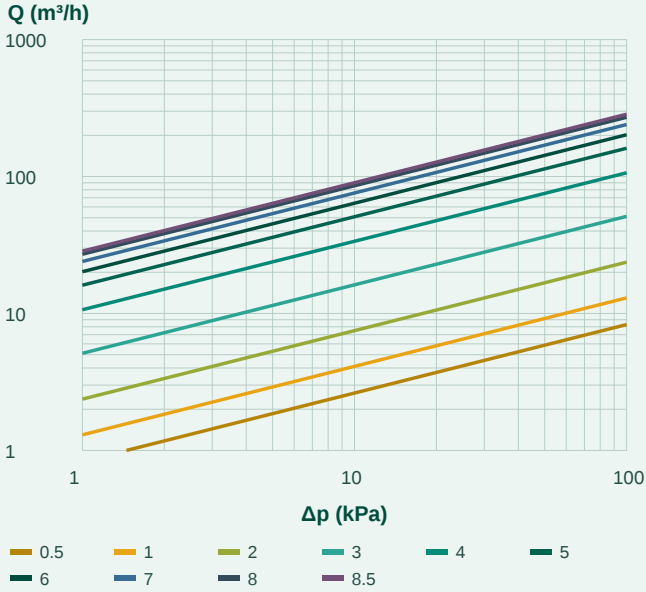


HANDWHEEL PRESETTING & Kv VALUES

TURNS	Kv (m³/h)	TURNS	Kv (m³/h)	TURNS	Kv (m³/h)
0.5	5.6	3.5	50.5	6.1	137.6
1.0	9.6	3.6	54.4	6.2	140.3
1.1	10.2	3.7	58.6	6.3	142.9
1.2	10.9	3.8	62.8	6.4	145.5
1.3	11.5	3.9	67.1	6.5	148.1
1.4	12.1	4.0	71.4	6.6	150.6
1.5	12.8	4.1	75.5	6.7	153.0
1.6	13.4	4.2	79.6	6.8	155.4
1.7	14.1	4.3	83.5	6.9	157.7
1.8	14.9	4.4	87.3	7.0	159.9
1.9	15.7	4.5	90.9	7.1	162.0
2.0	16.6	4.6	94.5	7.2	164.1
2.1	17.5	4.7	97.9	7.3	166.0
2.2	18.7	4.8	101.2	7.4	167.9
2.3	19.9	4.9	104.4	7.5	169.8
2.4	21.3	5.0	107.4	7.6	171.5
2.5	22.9	5.1	110.4	7.7	173.2
2.6	24.7	5.2	113.3	7.8	174.8
2.7	26.7	5.3	116.1	7.9	176.4
2.8	28.9	5.4	118.9	8.0	177.9
2.9	31.3	5.5	121.6	8.1	179.4
3.0	34.0	5.6	124.3	8.2	180.8
3.1	36.9	5.7	127.0	8.3	182.1
3.2	40.0	5.8	129.6	8.4	183.4
3.3	43.3	5.9	132.3	8.5	184.7
3.4	46.8	6.0	135.0		

DN125 | Kv_s 285.1 m³/h | FULL OPEN 8.5 TURNS

FLOW / DIFFERENTIAL PRESSURE



PRESETTING / FLOW COEFFICIENT

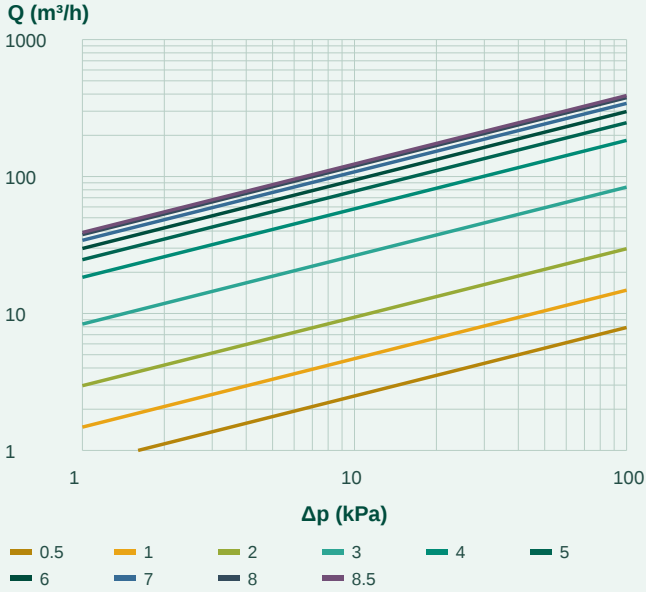


HANDWHEEL PRESETTING & Kv VALUES

TURNS	Kv (m ³ /h)	TURNS	Kv (m ³ /h)	TURNS	Kv (m ³ /h)
0.5	8.3	3.5	77.0	6.1	205.8
1.0	13.0	3.6	82.7	6.2	209.8
1.1	13.9	3.7	88.5	6.3	213.8
1.2	14.9	3.8	94.5	6.4	217.7
1.3	15.8	3.9	100.4	6.5	221.6
1.4	16.8	4.0	106.5	6.6	225.4
1.5	17.8	4.1	112.5	6.7	229.1
1.6	18.9	4.2	118.5	6.8	232.8
1.7	19.9	4.3	124.3	6.9	236.3
1.8	21.1	4.4	130.1	7.0	239.8
1.9	22.3	4.5	135.7	7.1	243.2
2.0	23.7	4.6	141.1	7.2	246.5
2.1	25.2	4.7	146.3	7.3	249.7
2.2	26.8	4.8	151.4	7.4	252.8
2.3	28.6	4.9	156.2	7.5	255.9
2.4	30.7	5.0	160.9	7.6	259.0
2.5	33.1	5.1	165.4	7.7	262.0
2.6	35.8	5.2	169.7	7.8	264.9
2.7	38.9	5.3	173.9	7.9	267.9
2.8	42.5	5.4	178.0	8.0	270.8
2.9	46.6	5.5	182.1	8.1	273.7
3.0	51.2	5.6	186.1	8.2	276.6
3.1	56.0	5.7	190.0	8.3	279.4
3.2	61.0	5.8	194.0	8.4	282.3
3.3	66.2	5.9	197.9	8.5	285.1
3.4	71.5	6.0	201.9		

DN150 | Kvs 390.2 m³/h | FULL OPEN 8.5 TURNS

FLOW / DIFFERENTIAL PRESSURE



PRESETTING / FLOW COEFFICIENT

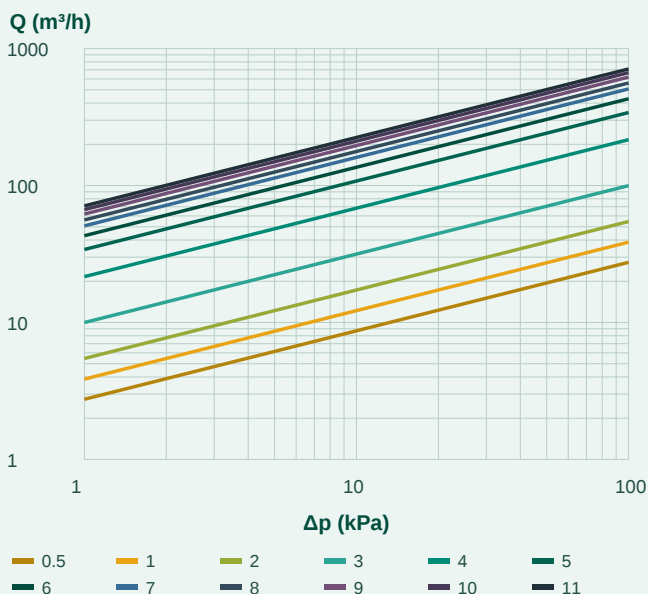


HANDWHEEL PRESETTING & Kv VALUES

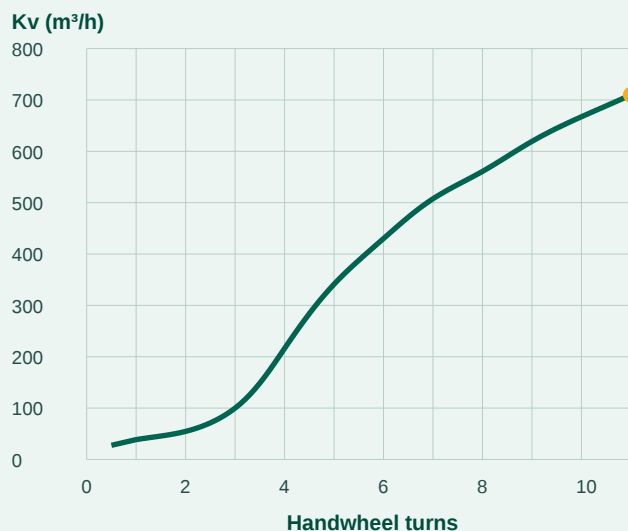
TURNS	Kv (m³/h)	TURNS	Kv (m³/h)	TURNS	Kv (m³/h)
0.5	7.9	3.5	132.0	6.1	303.0
1.0	14.8	3.6	143.1	6.2	307.7
1.1	15.6	3.7	154.0	6.3	312.3
1.2	16.3	3.8	164.6	6.4	316.9
1.3	17.1	3.9	174.5	6.5	321.3
1.4	18.0	4.0	183.7	6.6	325.7
1.5	19.1	4.1	192.0	6.7	329.9
1.6	20.5	4.2	199.6	6.8	334.1
1.7	22.1	4.3	206.7	6.9	338.2
1.8	24.2	4.4	213.3	7.0	342.2
1.9	26.7	4.5	219.5	7.1	346.1
2.0	29.7	4.6	225.3	7.2	349.9
2.1	33.2	4.7	231.0	7.3	353.6
2.2	37.2	4.8	236.5	7.4	357.2
2.3	41.7	4.9	241.8	7.5	360.7
2.4	46.5	5.0	247.1	7.6	364.2
2.5	51.8	5.1	252.4	7.7	367.5
2.6	57.4	5.2	257.7	7.8	370.7
2.7	63.4	5.3	262.9	7.9	373.8
2.8	69.7	5.4	268.1	8.0	376.8
2.9	76.4	5.5	273.3	8.1	379.7
3.0	83.7	5.6	278.4	8.2	382.5
3.1	91.7	5.7	283.5	8.3	385.2
3.2	100.7	5.8	288.4	8.4	387.7
3.3	110.5	5.9	293.4	8.5	390.2
3.4	121.1	6.0	298.2		

DN200 | Kvs 710.0 m³/h | FULL OPEN 11 TURNS

FLOW / DIFFERENTIAL PRESSURE



PRESETTING / FLOW COEFFICIENT

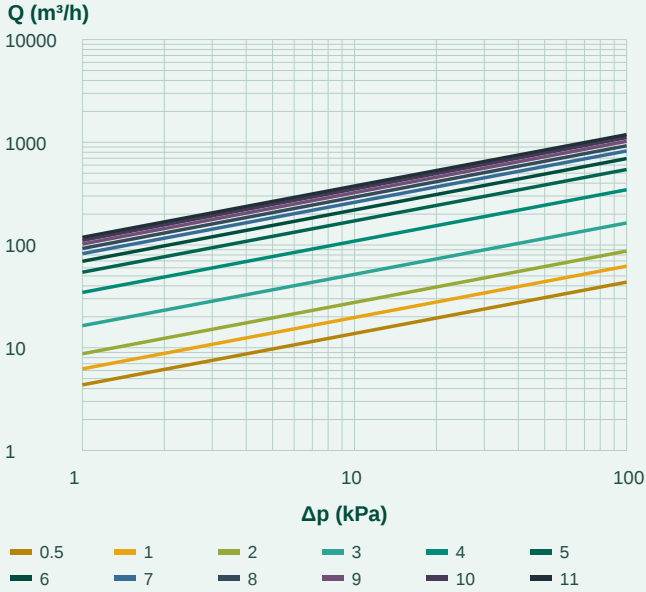


HANDWHEEL PRESETTING & Kv VALUES

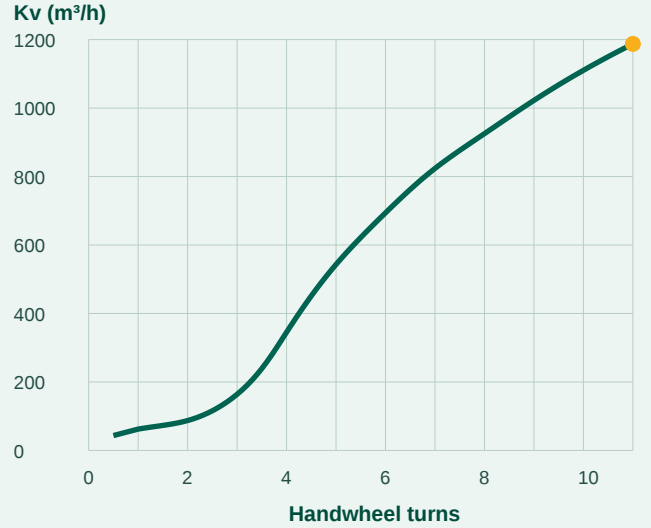
TURNS	Kv (m³/h)	TURNS	Kv (m³/h)	TURNS	Kv (m³/h)	TURNS	Kv (m³/h)
0.5	27.5	3.5	148.6	6.1	438.5	8.7	602.0
1.0	38.6	3.6	161.0	6.2	447.0	8.8	607.9
1.1	40.1	3.7	174.2	6.3	455.4	8.9	613.7
1.2	41.5	3.8	187.9	6.4	463.7	9.0	619.3
1.3	42.9	3.9	202.0	6.5	471.7	9.1	624.7
1.4	44.2	4.0	216.2	6.6	479.6	9.2	630.0
1.5	45.6	4.1	230.3	6.7	487.1	9.3	635.0
1.6	47.0	4.2	244.2	6.8	494.3	9.4	640.0
1.7	48.6	4.3	257.8	6.9	501.1	9.5	644.8
1.8	50.3	4.4	271.0	7.0	507.6	9.6	649.4
1.9	52.3	4.5	283.9	7.1	513.6	9.7	654.0
2.0	54.6	4.6	296.3	7.2	519.3	9.8	658.5
2.1	57.2	4.7	308.3	7.3	524.8	9.9	662.9
2.2	60.1	4.8	319.7	7.4	530.0	10.0	667.2
2.3	63.4	4.9	330.7	7.5	535.2	10.1	671.5
2.4	67.1	5.0	341.2	7.6	540.2	10.2	675.8
2.5	71.2	5.1	351.2	7.7	545.2	10.3	680.0
2.6	75.8	5.2	360.8	7.8	550.3	10.4	684.2
2.7	80.9	5.3	370.0	7.9	555.5	10.5	688.4
2.8	86.6	5.4	379.0	8.0	560.8	10.6	692.7
2.9	92.9	5.5	387.7	8.1	566.4	10.7	696.9
3.0	99.9	5.6	396.3	8.2	572.1	10.8	701.2
3.1	107.8	5.7	404.8	8.3	578.0	10.9	705.6
3.2	116.6	5.8	413.3	8.4	583.9	11.0	710.0
3.3	126.3	5.9	421.7	8.5	590.0		
3.4	137.0	6.0	430.1	8.6	596.0		

DN250 | Kv_s 1187.5 m³/h | FULL OPEN 11 TURNS

FLOW / DIFFERENTIAL PRESSURE



PRESETTING / FLOW COEFFICIENT



HANDWHEEL PRESETTING & Kv VALUES

TURNS	Kv (m ³ /h)	TURNS	Kv (m ³ /h)	TURNS	Kv (m ³ /h)	TURNS	Kv (m ³ /h)
0.5	43.5	3.5	239.2	6.1	708.1	8.7	993.9
1.0	62.3	3.6	258.4	6.2	722.0	8.8	1003.5
1.1	64.7	3.7	278.9	6.3	735.7	8.9	1013.0
1.2	66.9	3.8	300.5	6.4	749.2	9.0	1022.4
1.3	69.0	3.9	322.8	6.5	762.5	9.1	1031.7
1.4	71.0	4.0	345.3	6.6	775.4	9.2	1040.9
1.5	73.1	4.1	367.4	6.7	788.1	9.3	1050.0
1.6	75.3	4.2	389.2	6.8	800.3	9.4	1058.9
1.7	77.7	4.3	410.5	6.9	812.2	9.5	1067.8
1.8	80.4	4.4	431.2	7.0	823.7	9.6	1076.5
1.9	83.6	4.5	451.4	7.1	834.8	9.7	1085.1
2.0	87.3	4.6	471.0	7.2	845.5	9.8	1093.6
2.1	91.6	4.7	489.9	7.3	856.0	9.9	1101.9
2.2	96.6	4.8	508.3	7.4	866.2	10.0	1110.2
2.3	102.3	4.9	526.1	7.5	876.3	10.1	1118.4
2.4	108.7	5.0	543.3	7.6	886.2	10.2	1126.5
2.5	115.8	5.1	559.9	7.7	896.1	10.3	1134.4
2.6	123.8	5.2	576.0	7.8	905.8	10.4	1142.3
2.7	132.5	5.3	591.7	7.9	915.6	10.5	1150.1
2.8	142.0	5.4	607.0	8.0	925.3	10.6	1157.7
2.9	152.5	5.5	622.0	8.1	935.1	10.7	1165.3
3.0	163.9	5.6	636.8	8.2	944.9	10.8	1172.8
3.1	176.4	5.7	651.3	8.3	954.8	10.9	1180.2
3.2	190.1	5.8	665.7	8.4	964.6	11.0	1187.5
3.3	205.1	5.9	679.9	8.5	974.4		
3.4	221.4	6.0	694.0	8.6	984.2		