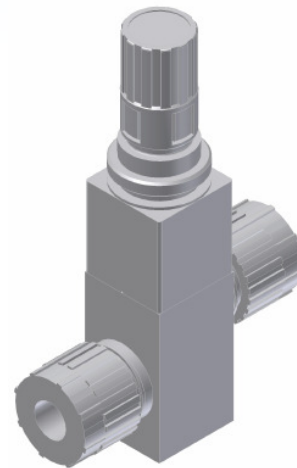
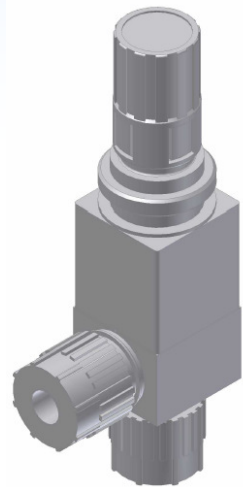


NP Series

High Precision Needle Valves



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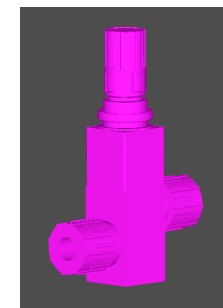
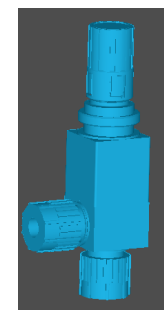
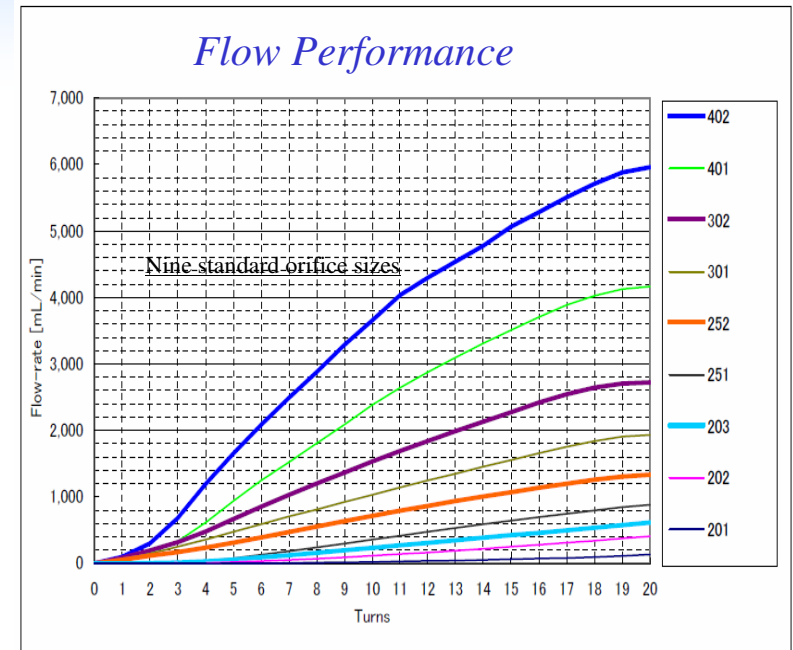
High Precision Needle Valves - NP Series

The NP series needle precisely adjusts flow to the desired flow rate. It features a 20 turn high-resolution needle mechanism. It is the industry's first (and only) high purity type high-precision needle valve.

The series has an array of orifice sizes (non-removable) to select from to precisely adjust flow in the required range. There are nine standard orifice sizes. Custom orifice sizes for higher flow rates available upon request.

It has a user-friendly push lock handle. The locking mechanism prevents the handle (and shaft) from rotating.

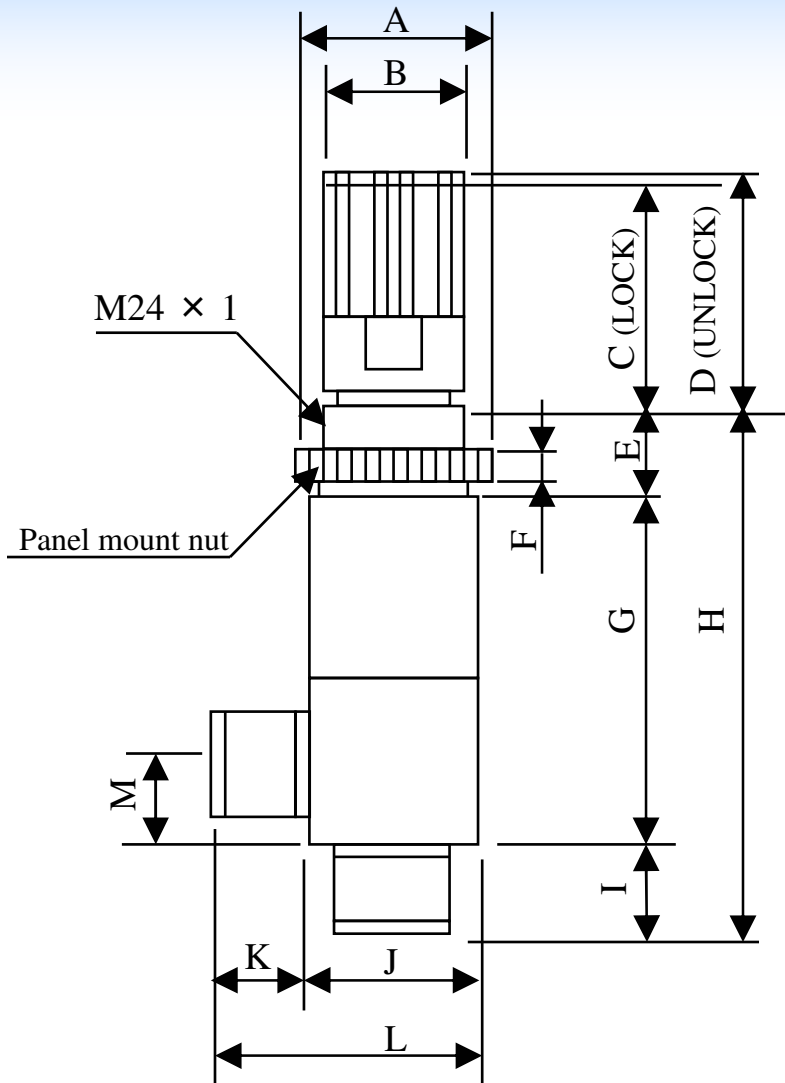
The series comes with 1/4", 3/8" or 1/2" connections (Pillar-S300, flare etc.). The port position for stand-alone models are offered in either angle or straight (step-up) type; manifold configurations available as well.



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Dimensions - Angle type



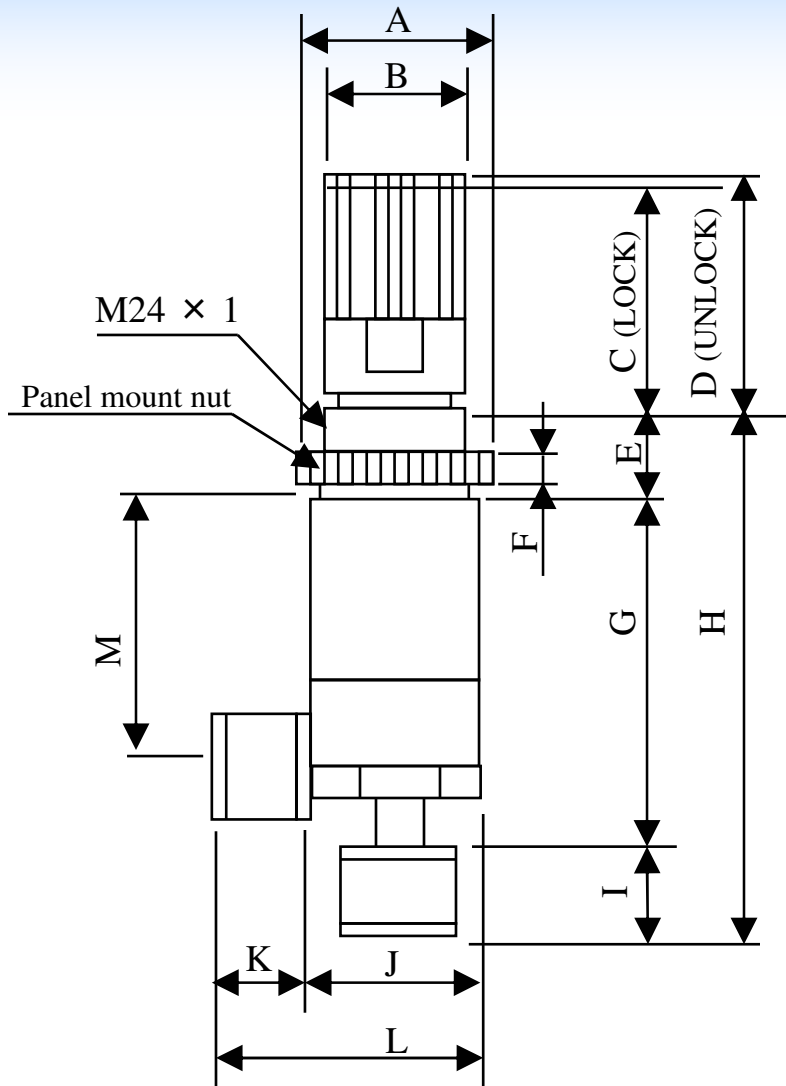
Dim.	Pillar S-300		Flare	
	1/4"	3/8"	1/4"	3/8"
A	φ 30	-	-	-
B	φ 22	-	-	-
C	35	-	-	-
D	38	-	-	-
E	14	-	-	-
F	5	-	-	-
G	55	-	-	-
H	84	80	93.4	95.4
I	11	15	24.4	26.4
J	□30	-	-	-
K	11	15	24.4	26.4
L	41	45	54.4	56.4
M	12	-	-	-

Dimensions in millimeters.

All PTFE flow path.

- Common dimension for each fitting size unless specified otherwise.

Dimensions - Angle type PFA Body w/ 3/8" S-300 fittings

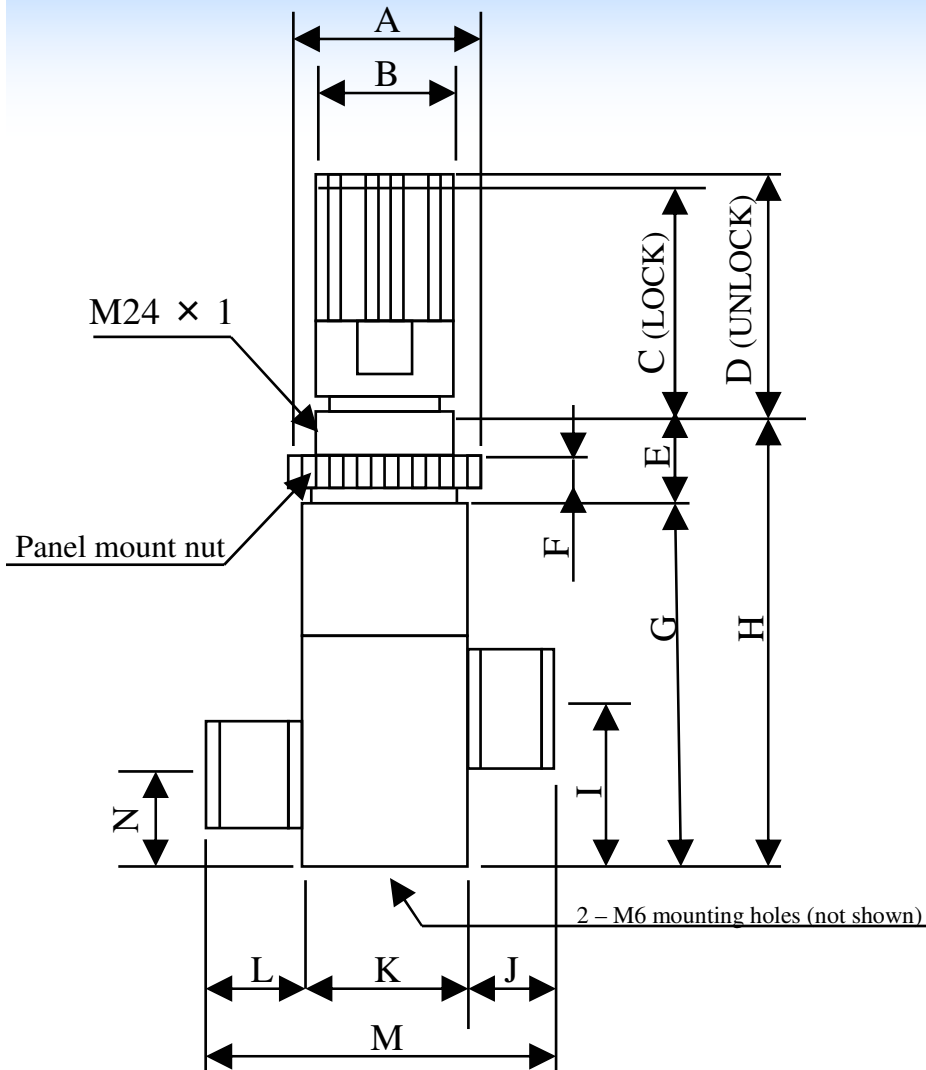


Pillar S-300	
Dim.	PFA Body 3/8" fttgs
A	ϕ 30
B	ϕ 22
C	35
D	38
E	14
F	5
G	55
H	87
I	15
J	\square 30
K	17
L	47
M	43

Dimensions in millimeters.

PFA/PTFE flow path.

Dimensions - straight type (step-up)



Dim.	Pillar S-300			Flare		
	1/4"	3/8"	1/2"	1/4"	3/8"	1/2"
A	φ 30	-	-	-	-	-
B	φ 22	-	-	-	-	-
C	35	-	-	-	-	-
D	38	-	-	-	-	-
E	14	-	-	-	-	-
F	5	-	-	-	-	-
G	73	73	85	73	73	73
H	87	87	99	87	87	87
I	30	30	39	30	30	30
J	11	15	17.5	24.4	26.4	29
K	□30	-	-	-	-	-
L	11	15	17.5	24.4	26.4	29
M	52	60	65	78.8	82.8	88
N	18	18	22	18	18	18

Dimensions in millimeters.

All PTFE flow path.

- Common dimension for each fitting size unless specified otherwise.

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Model Code Selection (for stand-alone models)

Handle Type		Body Size		Body Material		Mounting		Port Position		Fitting Size		Fitting Type		Orifice Code (flow range)	
NP	Push lock	3	30 mm sq.	1	PTFE	0	Panel mount (see note #2)	A	Angle	2	1/4"	CB	Nippon Pillar S-300	201	0 ~ 0.27 L/min
				6	PFA (see note #1)			0	Straight (step-up)	3	3/8"	FV	Flare w/ PVDF nuts	202	0 ~ 0.65 L/min
										4	1/2"			203	0 ~ 1.1 L/min
														251	0 ~ 1.5 L/min
														252	0 ~ 2.3 L/min
														301	0 ~ 2.9 L/min
														302	0 ~ 4.4 L/min
														401	0 ~ 5.8 L/min
														402	0 ~ 7.2 L/min

Fixed code Fixed code Fixed code

Example:

NP310A-2CB-201 → Angle PTFE body with 1/4" Nippon Pillar S-300 fittings;
Approximate flow range: 0 to 270 mL/min (depending on delta pressure).

Note:

#1 – The following specifications are fixed for PFA body type:

- Port position – Angel
- Fitting size/type – 3/8" Nippon Pillar S-300
- Orifice code – 401 and 402

(model #: NP360A-3B-401 and NP360A-3B-402)

#2 – Bottom mount can be applied as well to straight (step-up) type models. Panel mount only for angle type models.

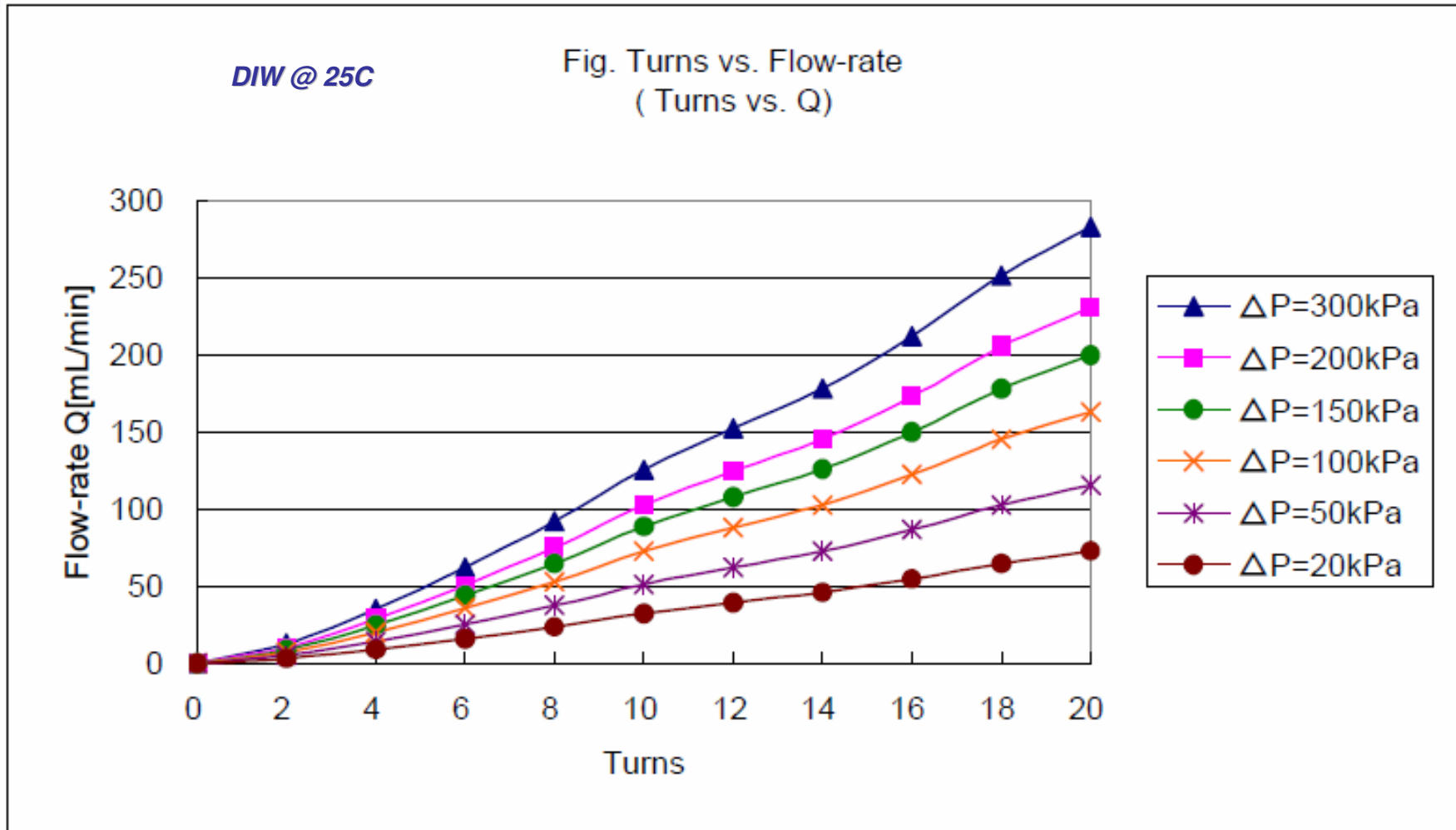
#3 – Flow ranges listed in above table are approximate. Max flow depends on the amount of delta pressure. See individual flow graphs for details.

#4 – Inquire with Advance for product drawings/spec sheets, as well as for manifold configurations.

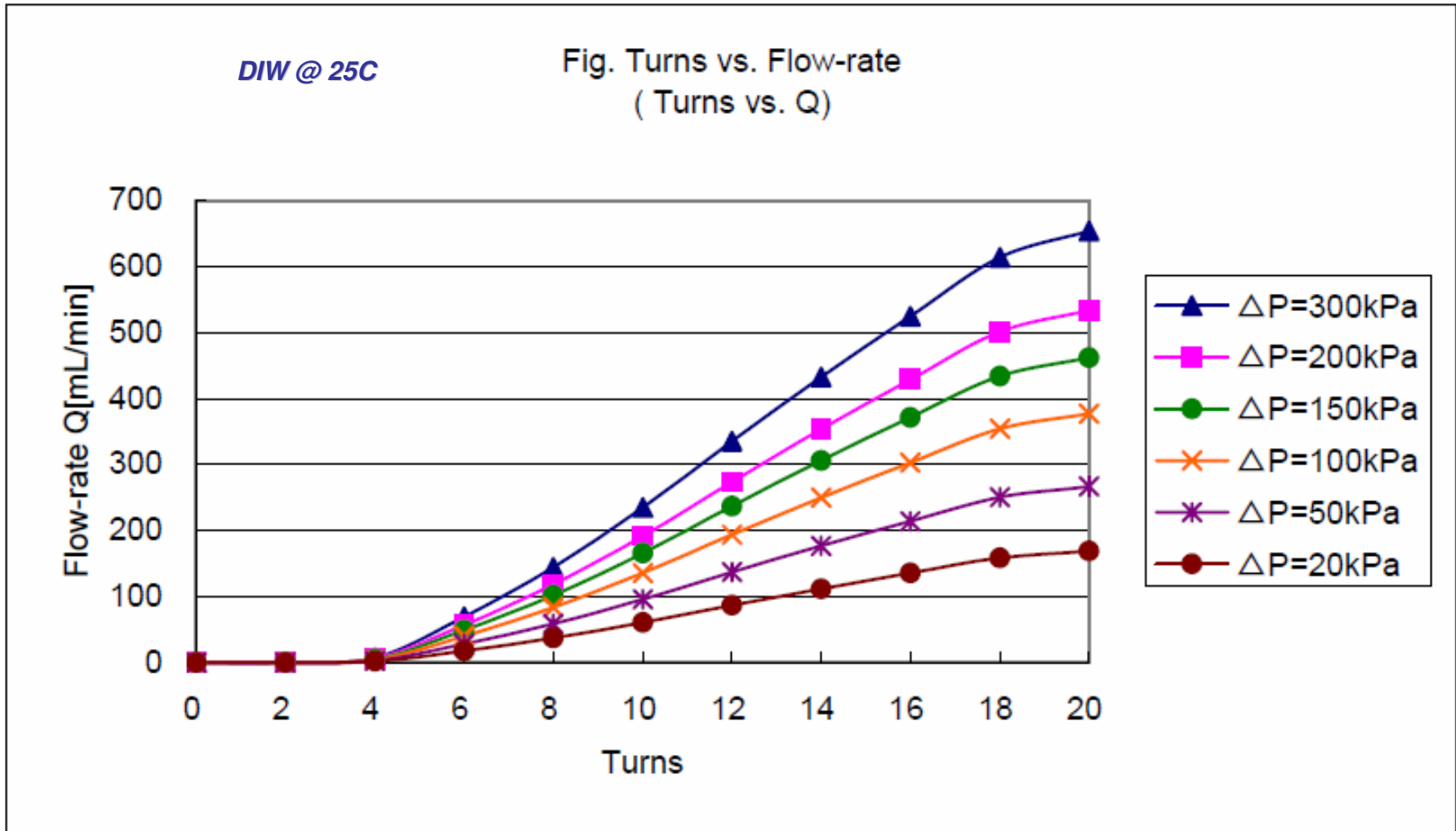


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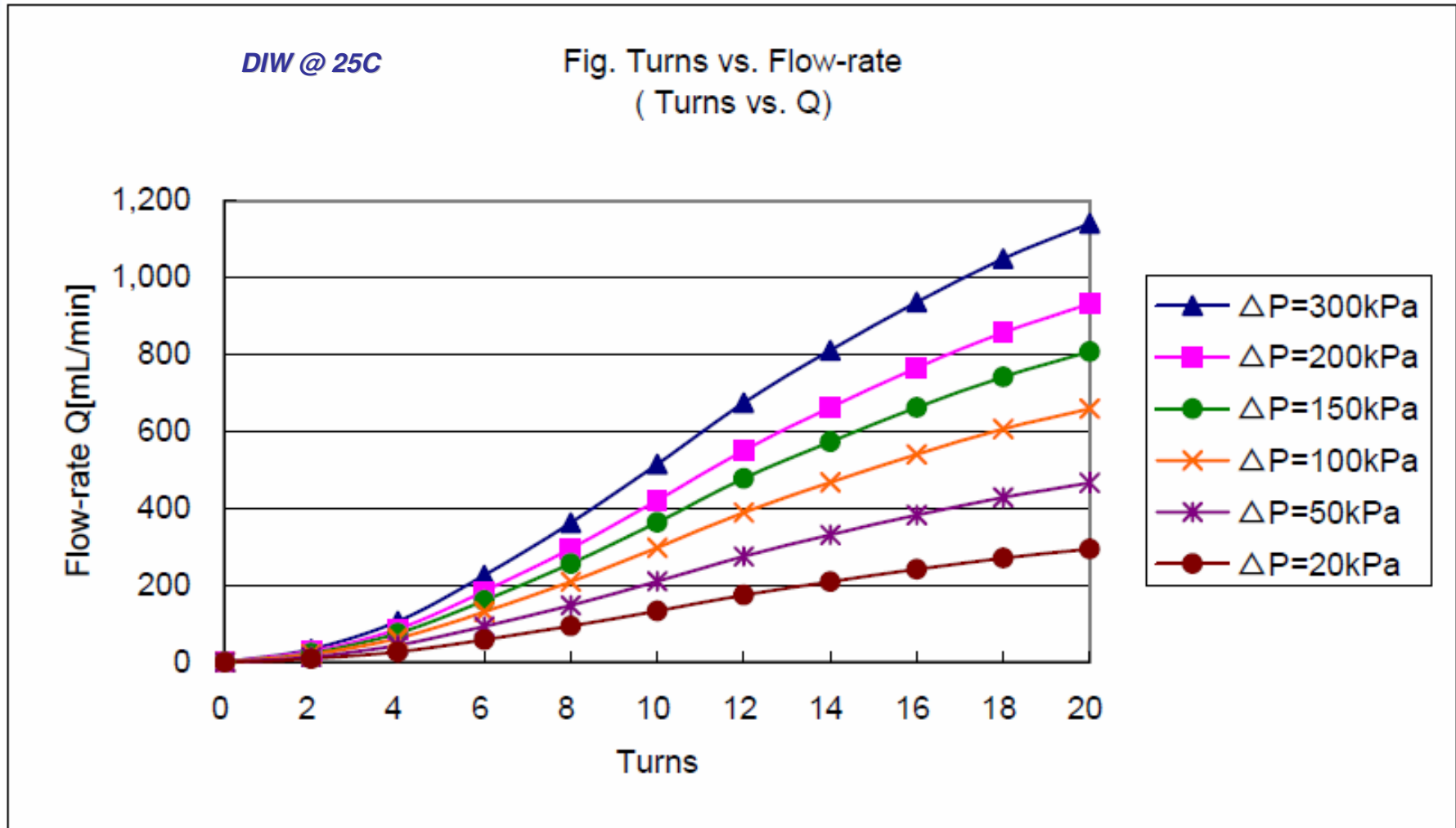
Orifice Code "201" performance data @ various ΔP



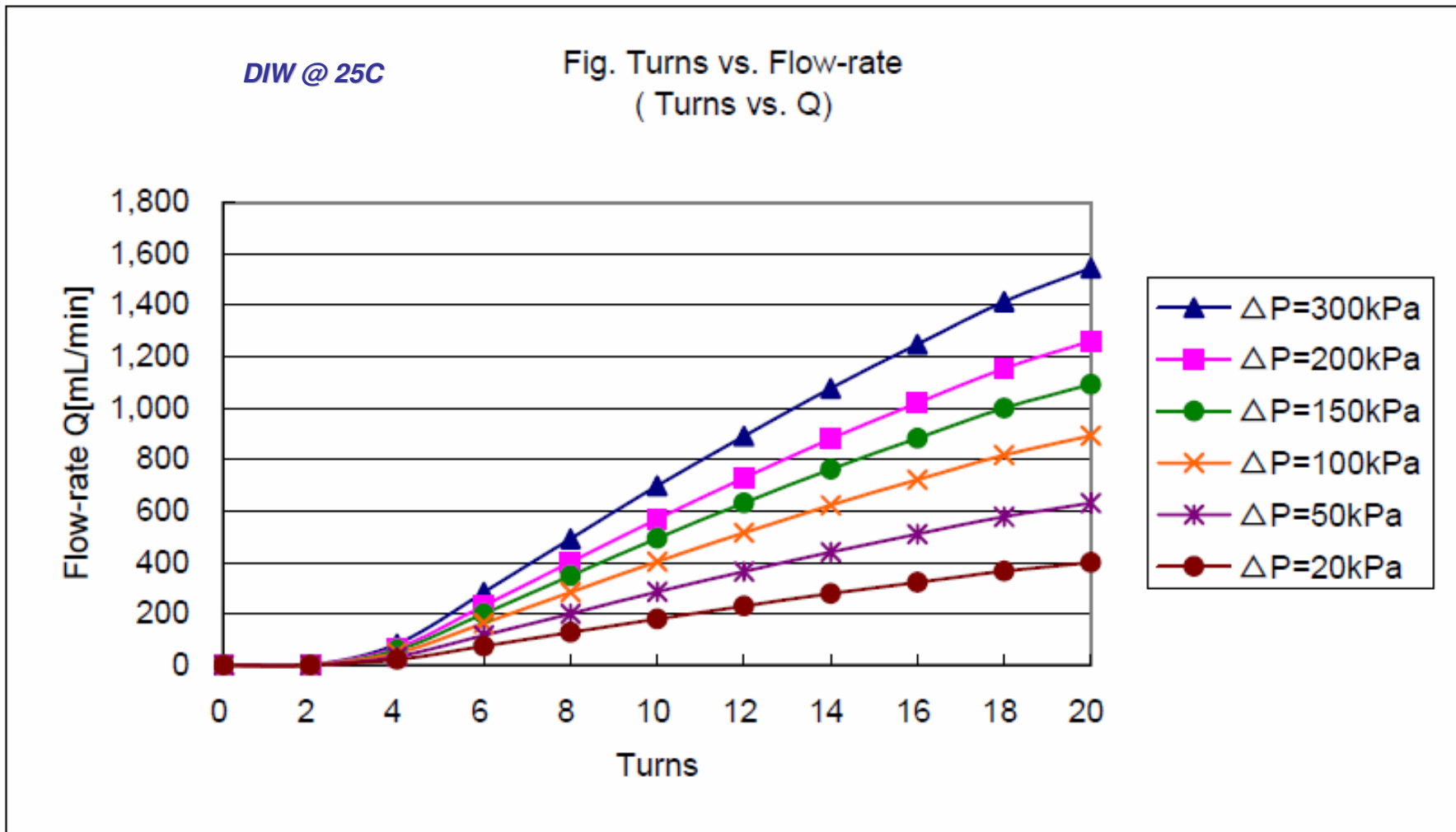
Orifice Code "202" performance data @ various ΔP



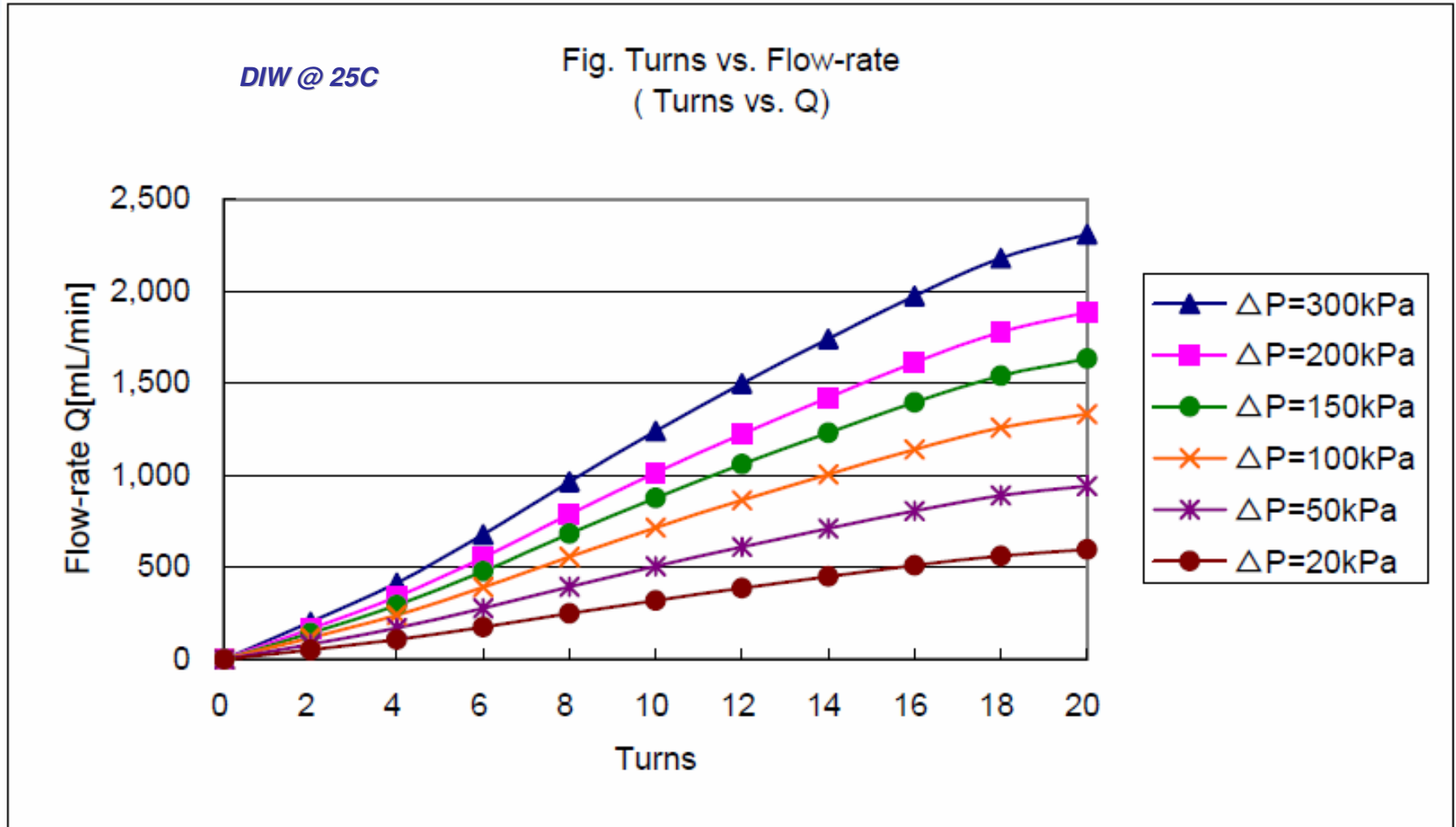
Orifice Code "203" performance data @ various ΔP



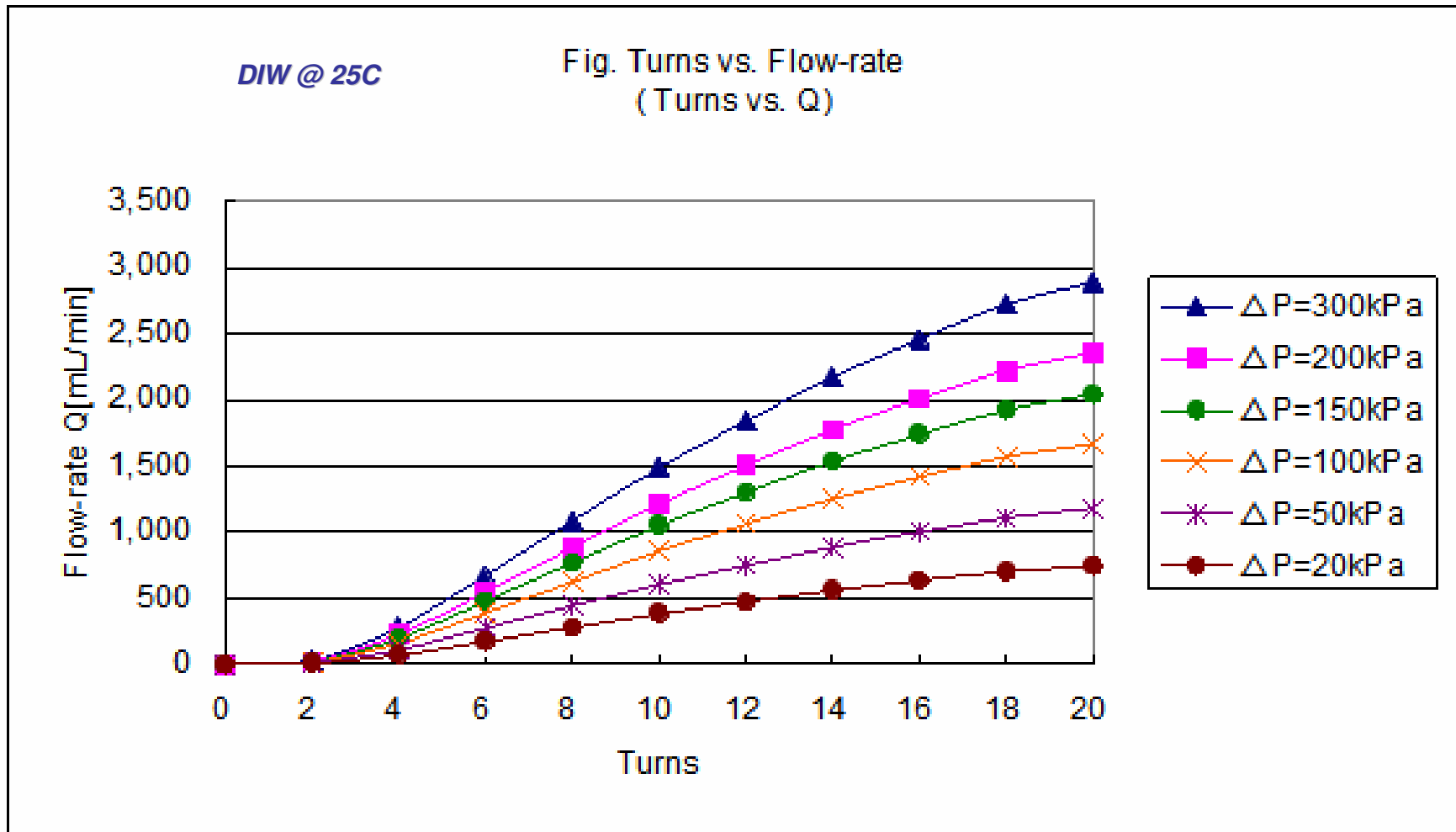
Orifice Code "251" performance data @ various ΔP



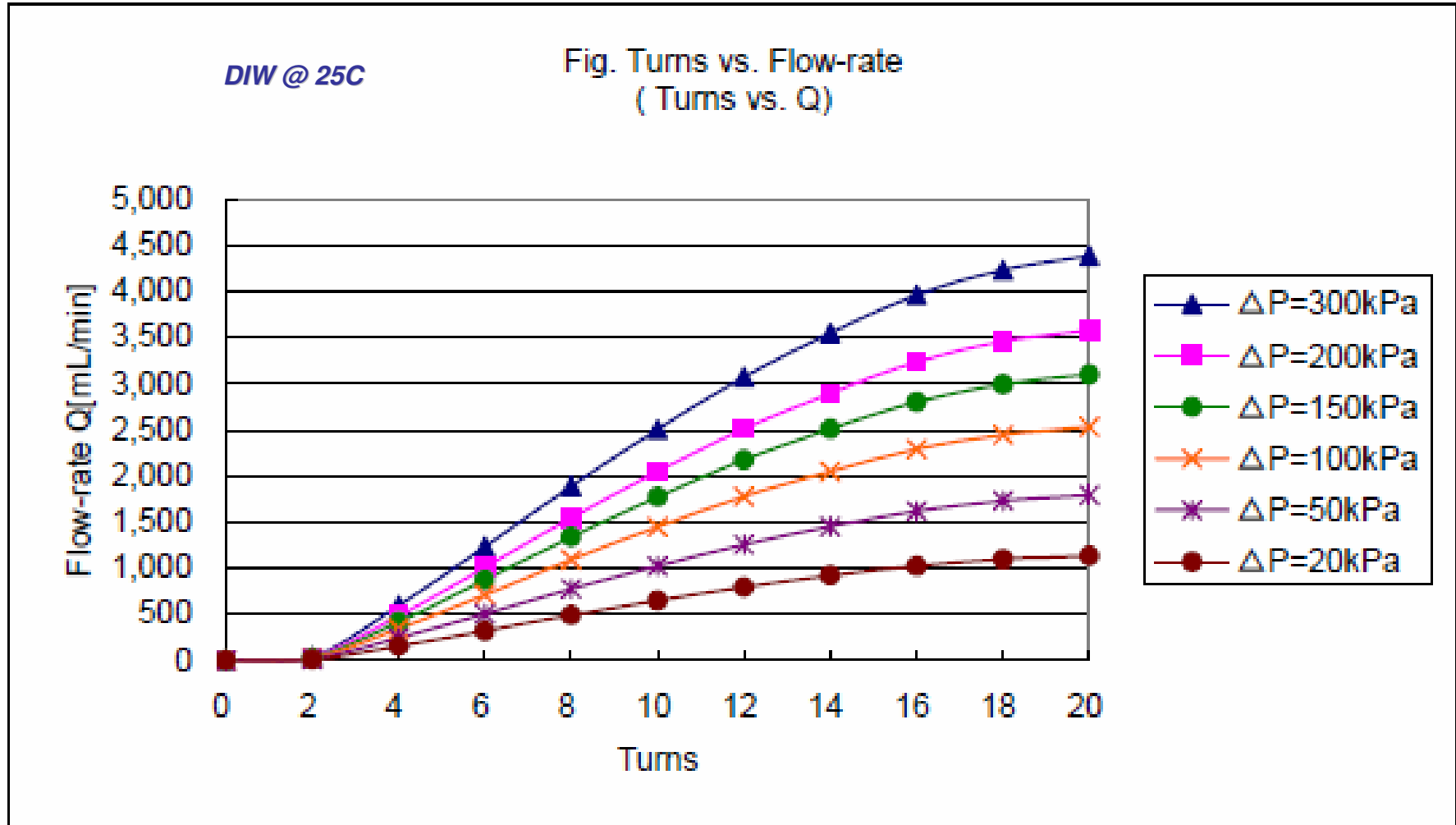
Orifice Code "252" performance data @ various ΔP



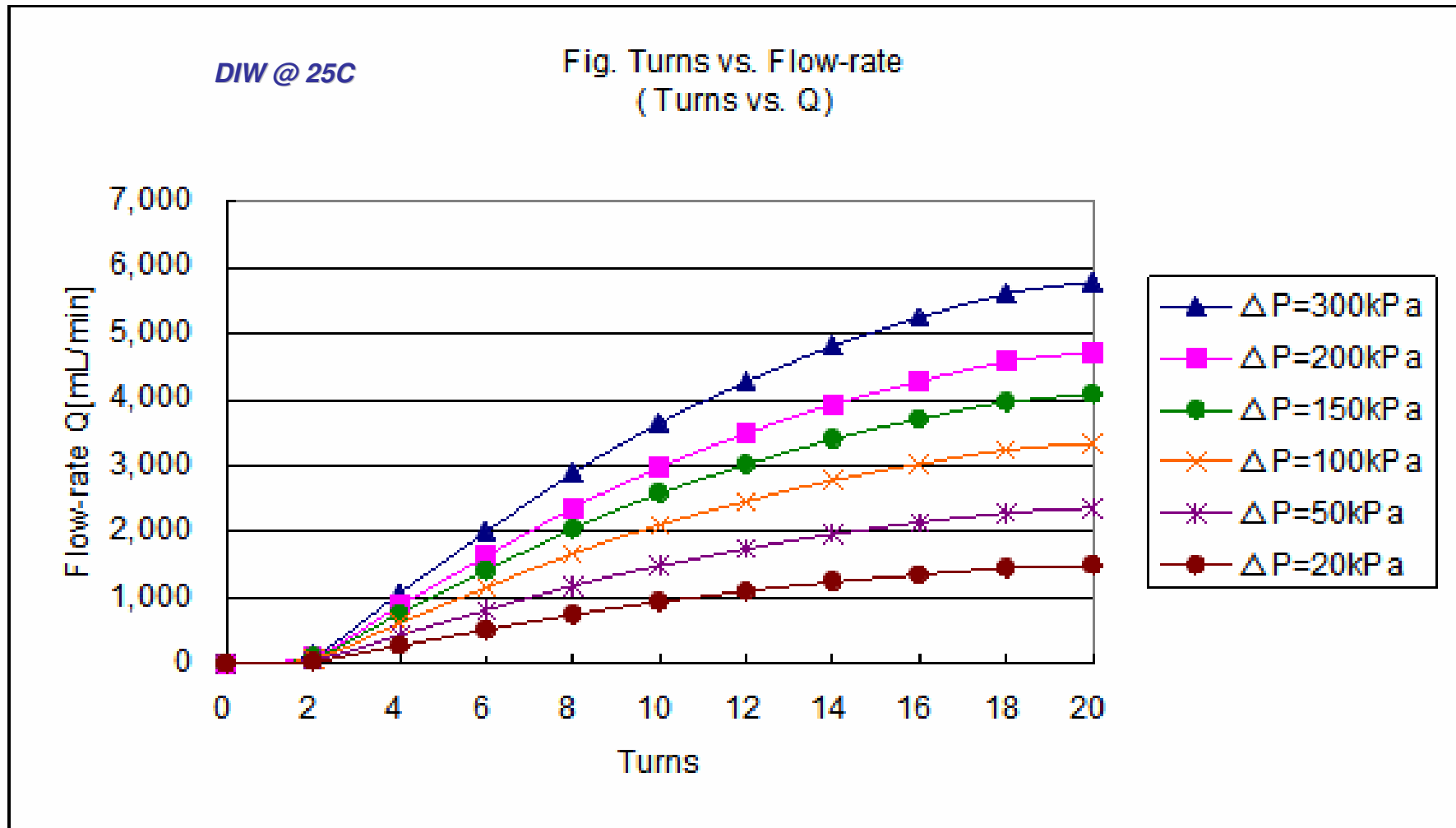
Orifice Code "301" performance data @ various ΔP



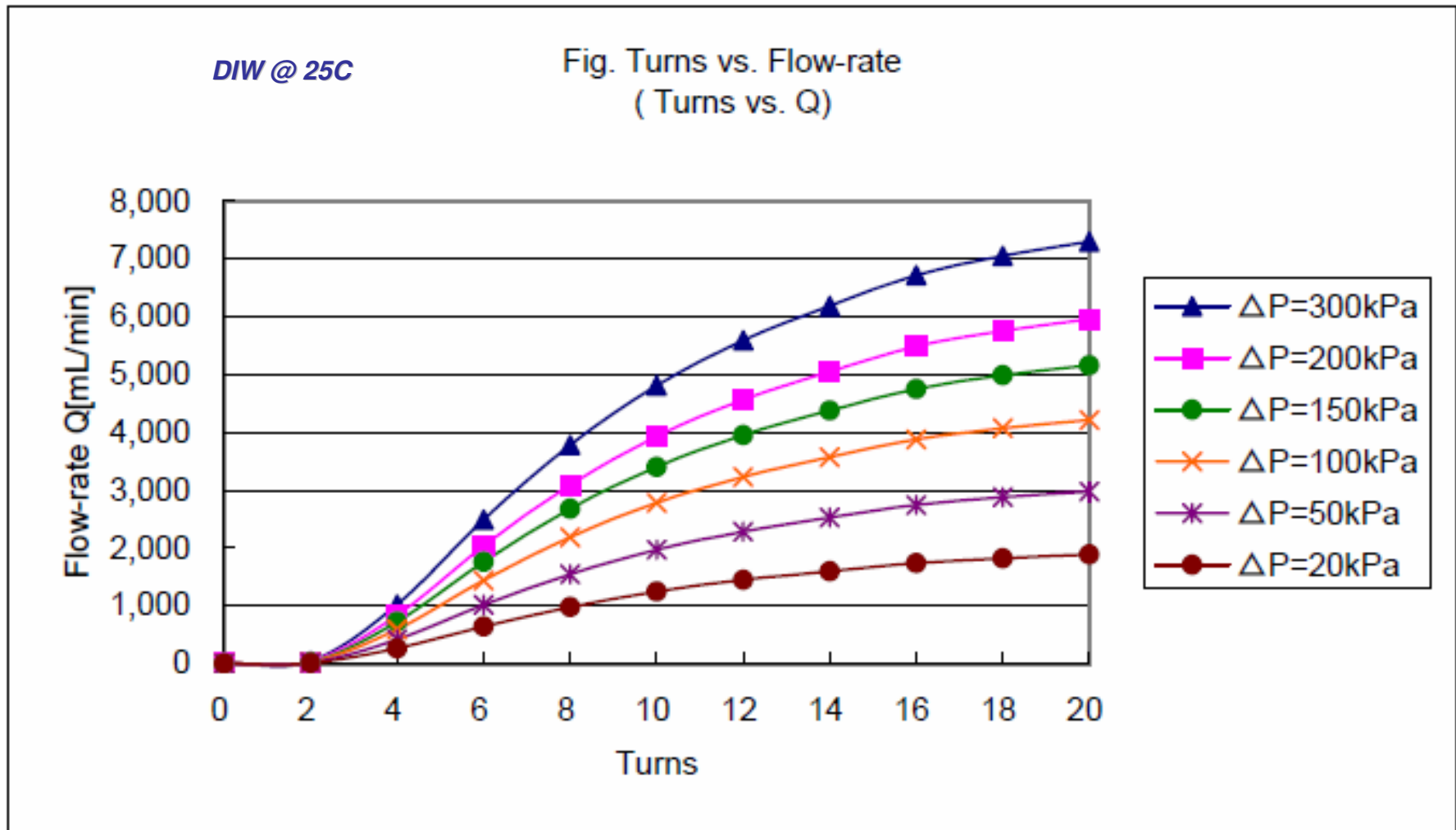
Orifice Code "302" performance data @ various ΔP



Orifice Code "401" performance data @ various ΔP



Orifice Code "402" performance data @ various ΔP



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