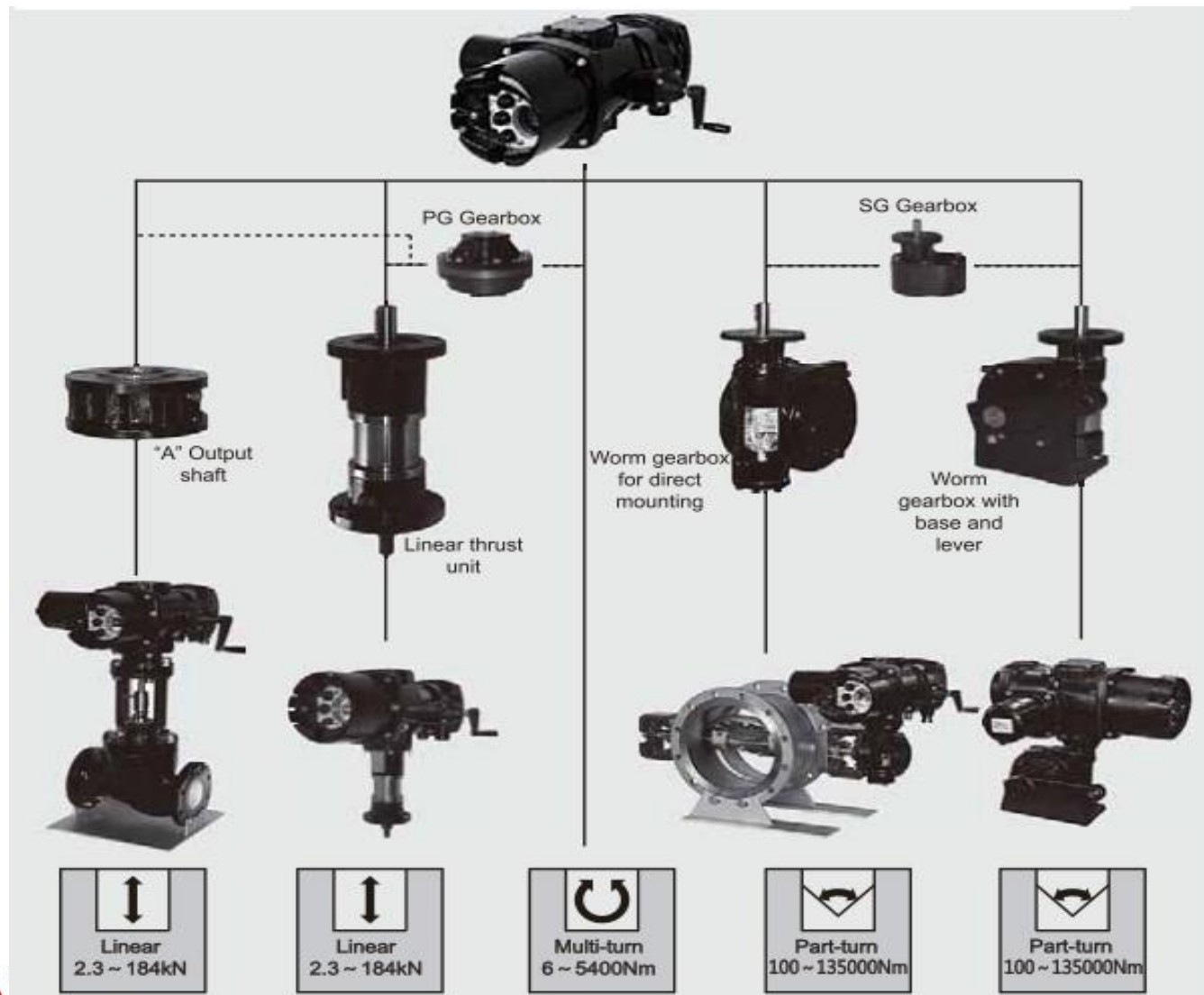


Model Selection

Actuators And Gearbox Combination



Type Of Valve Action

Multi-turn

Gate valve

Globe valve

Expanding plug valve

Penstock

Orbital ball valve

Plunger valve

Part-turn

Ball valve

Butterfly

Damper

Plug valve

Piston regulating valve

Linear

Slide stem control valve

Ontrac Actuator Selection Steps

Step1: Valve action type : Multi-turn/ Linear / Part-turn

Step2: Valve control type : On-off/ Modulating

Step3: Valve load: Torque/ Force

Step4: Valve operating frequency/ Full stroke time

Step5: Actuator control and feedback signals

Step6: Actuator connection type

Step7: Part-turn connection: Direct/ Lever

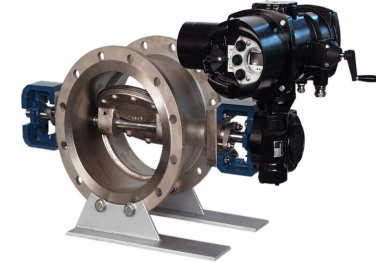
Step8: Actuator protection and explosion-proof

Step9: Space heater

Step10: ~AC220V dry contactor

Step11: Spilt or not

Step12: Part-turn valve high platform mounting and other requirements



Part-turn



Multi-turn



Linear
ABB
Technology

Ontrac Actuator Data Information



Modulating duty

>= ~3 380V 50/60Hz

Actuator	mech. output			Flange (ISO 5210)
	Max. modulating torque Md [Nm]	Switch-off torque Md [Nm] ¹⁾	Speed n [1/min]	
MME 806	25	20 - 50	7 - 35	F 10
MME 808	40	32 - 80	7 - 35	F 10
MME 812	75	60 - 150	7 - 35	F 10
MME 825	150	120 - 300	7 - 35	F 14
MME 850	300	240 - 600	7 - 35	F 14
MME 890	600	480 - 1200	7 - 35	F 16

Note:

While voltage = ~220V50/60Hz torque can refer to below

1. MOE708 S/R/M & MME808 output torque*0.7
2. MOE712 S/R/M & MME812 output torque*0.5
3. MOE725 S/R/M & MME825 output torque *0.5
4. MOE750 & MME850 and above note supply

While voltage = ~3 220V50Hz/60Hz torque as below

1. MOE708 S/R/M & MME808 output torque*0.7
2. MOE712 S/R/M & MME812 output torque*0.5
3. MOE725 S/R/M & MME825 output torque *0.5
4. MOE750 P/R & MME850 output torque *0.5
5. MOE790 & MME890 note supply

On-off duty

>= ~3 380V 50/60Hz

Actuator Type	Mechanical Output			Self Locking	Stroke without spindle cover [mm]	Flange size (ISO 5210)
		Switch-OFF torque Md [Nm]	Speed n [1/min]			
MOE 706	M	25 - 50	7 - 35	●	190	F 10
	R	10 - 25	18 - 92	●		
	S	6 - 15	36 - 180	○		
MOE 708	M	32 - 80	7 - 35	●	190	F 10
	R	20 - 50	18 - 92	●		
	S	12 - 30	36 - 180	○		
MOE 712	M	60 - 150	7 - 35	●	190	F 10
	R	40 - 100	18 - 92	●		
	S	32 - 80	36 - 180	○		
MOE 725	M	120 - 300	7 - 35	●	190	F 14
	R	80 - 200	18 - 92	●		
	S	50 - 125	36 - 180	○		
MOE 750	P	160 - 400	14 - 72	●	190	F 14
	R	120 - 300	18 - 92	●		
MOE 790	PL	400 - 1000	14 - 72	●	190	F 16
	RL	260 - 650	18 - 92	●		

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Ontrac Gearbox

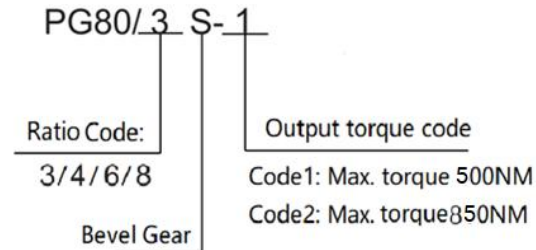
Flange standard: ISO5210 & ISO5211

Part-turn Gearbox:

First stage gear	Second stage gear	Ratio	Max torque(NM)	Flange ISO5211
ASNG50	-	60:1	800	F12
ASNG100	-	70:1	1700	F12
ASNG200	-	70:1	1700	F12
ASNG300	-	70:1	3000	F14/F16
	SG65/2	129:1		
ASNG600	SG65/3	210:1	7000	F16/F20
	SG65/4	275:1		
ASNG1000	SG65/5	359:1	16000	F16/F25
	SG65/6	420:1		
ASNG2000	-	(First stage ratio*N):1	28000	F25/F30
ASNG3500	SG80/2		40000	F30-F40
ASNG6500	SG80/3		65000	F35-F60
	...			
ASNG13500	SG80/12		145000	F48-F60

Two stage gearbox with lever and base mounting model e.g. SG65/3+ASNG1000
Two stage gearbox for direct mounting model e.g. SG65/3+ASNG1000/D

PG multi-turn Gearbox



PGZ multi-turn Gearbox

Type	Max. torque (NM)	Ratio	Flange ISO5210
PGZ/4	1700	3/ 4/ 6/ 8:1	F25
PGZ/6	4000	3/ 4/ 6/ 8:1	F30
PGZ/8	8000	3/ 4/ 6/ 8~36:1	F35
PGZ/10	14000	6/ 8~64:1	F35

Linear thrust unit

Size	Stroke	Max. force KN
LE12. 1	50/100/150/200/400	11. 5
LE25. 1	50/100/150/200/400	23
LE50. 1	50/100/150/200/400	39
LE70. 1	100/160/320/400	64
LE100. 1	100/160/320/400	128

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Ontrac Actuator Order Information



Model: Actuator + function board + Gearbox + other function

E.g. model: MOE708R+386A+PG80/3S-1 380V

1. Basic actuator model: MOE708R (max. switch-off torque 50NM, 36.8-92prm On-off duty).
2. Actuator function board code: 386A – (Profibus D/P V2).
3. Gearbox: PG80/3S-1, bevel gearbox ratio 3:1, Gearbox max. load 450NM.
4. Voltage is ~3 380V.

Actuator Code:

MOE700 or MME800 series actuator

Function board:

385	4-20mA feedback
386A	Profibus D/P V2
387	4-20mA input and 4-20mA
388	Modbus

Gearbox Code:

PG80/*S-*	Multi-turn bevel gearbox
ASNG***/D	Part-turn Gearbox direct mounting with valve
ASNG***	Part-turn Gearbox with lever
LE*.*	Linear thrust unit

Other function:

389	With large capacity 220V8A contactor board
668	IP68 protection
ECB	With Electronic control box, cable Max. length 10m.
Ex	Ex d II CT4 Explosion-proof

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Model Selection - Multi-turn Case



Case1

Customer requirements :

DN150 PN10 Knife gate valve application, 24VDC digital control and 4-20mA valve position feedback, Torque 60Nm without S.F.

Model Selection:

1. Knife gate valve - > **Multi-turn**
2. 24VDC digital control and 4-20mA -> add **385** expansion board
3. Torque 60Nm without S.F.-> generally S.F. is 1.25 to 1.3,
so request torque max. **78NM**

The best model: MOE708M+A1+385 380V

* If customer does not mention include S.F. or not, we will quote base on include S.F..

* If not offer power supply, normally we will quote base on 3Phs 380VAC

Model Selection - Part-turn Case



Case2

Customer requirements :

Damper, 4-20mA control, base mounting, Field working temperature up to 70 C°, damper Operating torque 2000NM.

Model Selection:

1. Damper - > **Part-turn**
2. 4-20mA control -> add **387** expansion board
3. Torque 2000m without S.F.-> **2000NM**,
4. Field working temperature up to 70 C°-> **ECB**, As high working temperature Recommend actuator with an electronic control box, working temperature can up to 85C°

The best model: MME808+387+ECB+SG65/2+ASNG300 380V

Model Selection – Linear Case



Case3

Customer requirements :

Slide stem control valve, 10000N (exclude S.F.), Modbus communication. 3PH 380Vac power supply.

Model Selection:

1. Slide stem control valve - > **Linear**
2. Modbus communication -> need **388** expansion board
3. Thrust 10000N without S.F.-> Consider $*1.3=13000N$,

Final actuator model: MME808+388+LE25.1 380V