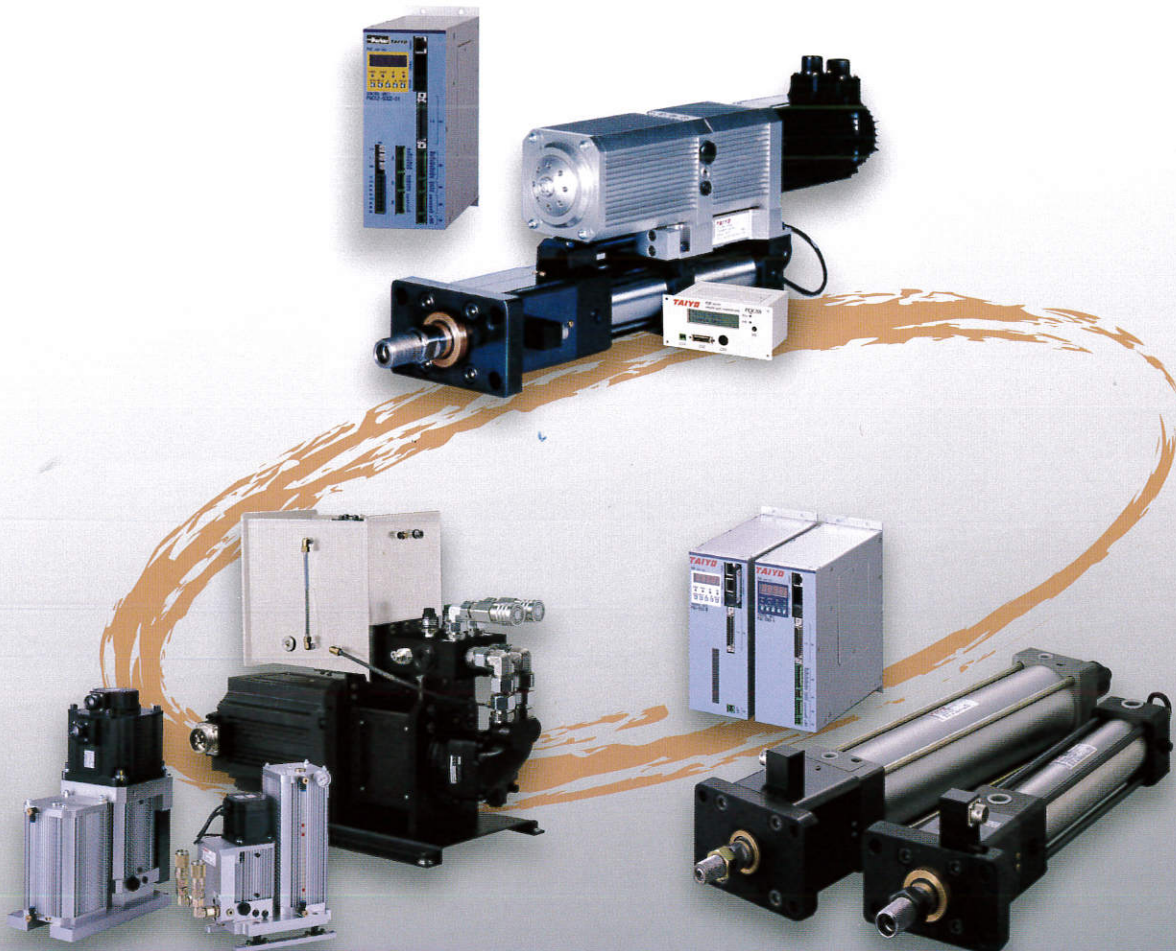


# 『ATSUKAN』 SERIES

Totally integrated  
hydraulic servo system !  
Can be freely combined to  
support a variety of uses.



# Advanced energy saving programmable hydraulic drive unit combining a hydraulic cylinder and servo unit!!

Compact and without hydraulic piping leading to reduced design cost  
Major drop in power consumption with the servo design (excellent energy saving performance)

Pump size: Can support 1.1, 3.5, 11.3 and 15.2 cc/rev

Can support a maximum speed of 350 mm/s

\* Varies depending on the cylinder and pump combination

## Full spec type

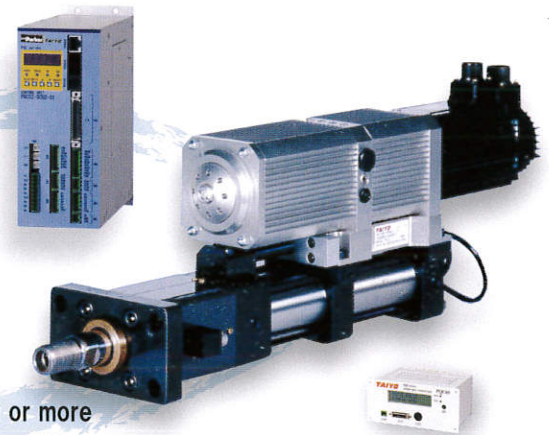
- Can support specs of built-in load cells (1-10 tons)
- CC-Link compatible servo controller
- Can optionally support the Atsukan determination function
- In combination with the Atsukan servo, can also support determination of midway stop and press fit (press fitting without surges)
- Stop accuracy

Position sensor: Digital length measurement sensor/  $\pm 0.02$  mm or more

Analog length measurement sensor/  $\pm 0.1$  mm or more

Load sensor: Load cell/Load cell rating  $\pm 3\%$

Pressure sensor/Pressure sensor range  $\pm 3\%$



## Simple spec type

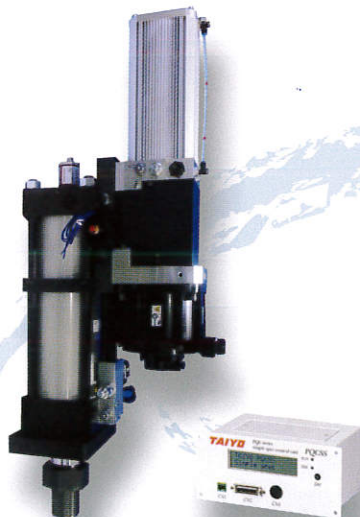
- Lower price specification
- Simple spec control unit with emphasis on low price (I/O communication only)
- Standardized use of an analog length measurement sensor and pressure sensor
- Range of products up to 20 tons  
\* Special orders available for requirement above 20 tons
- Stopping accuracy

Position sensor:

Analog length measurement sensor/  $\pm 0.1$  mm or more

Load sensor:

Pressure sensor/Pressure sensor range  $\pm 5\%$



# Totally integrated hydraulic servo system Can be freely combined to support a variety of uses!!

Can be combined with a  $\phi 250$  cylinder to support a maximum of 100 tons

Wide range of variations in pump size from 1.1 - 60 cc/rev

Can support movement speed up to 900 mm/s

\* Please remember to reduce speed before pressurizing

Totally integrated servo system including the hydraulic cylinder, hydraulic hose, controller and even cables



Controller

PQC series  
Atsukan cylinder  
Bore: up to  $\phi 100$ mm  
Pressure: up to 14MPa

Hydraulic motor

Atsukan Servo Unit  
Pump size: 1.1 ~ 60cc/rev  
Two stage pump size: 18  $\leftrightarrow$  60cc/rev  
24  $\leftrightarrow$  80cc/rev

PQCL series  
Load sensing cylinder  
Bore: up to  $\phi 100$ mm  
Pressure: up to 14MPa

Standard hydraulic cylinder  
Bore: up to  $\phi 250$ mm  
Pressure: up to 21MPa

PTT-1B series

PTT-1BR series  
Position sensing cylinder  
Bore: up to  $\phi 250$ mm  
Pressure: up to 21MPa

PQCP series  
Position sensing cylinder  
Bore: up to  $\phi 100$ mm  
Pressure: up to 14MPa

Common uses: Caulking, Press-fitting, Extrusion molding, Powder molding, Compression molding, Testing machines, etc.

## Specifications

### Unit with low flow rate (1.1cc/rev - 11.3cc/rev)

Two-way pump		1.1cc/rev				3.5cc/rev				11.3cc/rev			
Servo motor		0.4kW	0.75kW	0.85kW	0.45kW	0.85kW	1.3kW	1.8kW	1.8kW	2.9kW	4.4kW	5.5kW	
Rated pressure		7MPa (97%)	14MPa (103%)	21MPa (69%)	5MPa (100%)	7MPa (73%)	14MPa (94%)	21MPa (102%)	7MPa (110%)	10MPa (97%)	14MPa (89%)	21MPa (108%)	
Discharge quantity	Rated flow rate	3L/min (3000rpm)				1.5L/min (1500rpm)				4.8L/min(1500rpm:when there is load) 9.6L/min(3000rpm:when there is no load)			
		15.5L/min(1500rpm:when there is load) 30.8L/min(3000rpm:when there is no load)											
Tank capacity	Internal volume	0.8 ~ 2.5L				0.8 ~ 2.5L				1.3 ~ 4.3L			
	Effective capacity	0.4 ~ 1.3L				0.4 ~ 1.3L				0.7 ~ 2.1L			

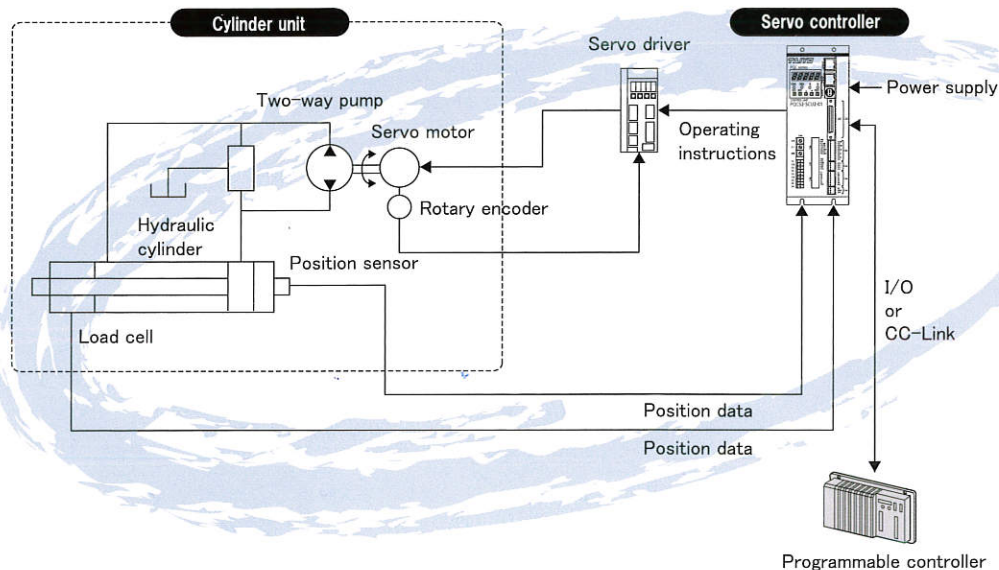
### Unit with high flow rate (19cc/rev ~ 60cc/rev)

Two-way pump		19cc/rev		30cc/rev		40cc/rev		60cc/rev	
Servo motor		7.5kW	11kW	11kW	15kW	15kW	22kW	22kW	30kW
Rated pressure		14MPa (89%)	21MPa (91%)	14MPa (96%)	21MPa (106%)	14MPa (94%)	21MPa (96%)	14MPa (96%)	21MPa (105%)
Discharge quantity	Rated flow rate	25.6L/min (1500rpm)		40.5L/min (1500rpm)		54.0L/min (1500rpm)		80.7L/min (1500rpm)	
Tank capacity	Internal volume	12.0L		12.0L		12.0L		12.0L	
	Effective capacity	3.9L		3.9L		3.9L		3.9L	

### Two stage pump unit (18⇔60cc/rev, 24⇔80cc/rev)

Two stage pump		18cc⇔60cc		24cc⇔80cc	
Pump discharge quantity		18cc/rev	60cc/rev	24cc/rev	80cc/rev
Servo motor		7.5kW		11kW	
Rated pressure		21MPa (125%)		21MPa (115%)	
Discharge quantity	Rated flow rate	108L/min (2000rpm)		144L/min (2000rpm)	
Tank capacity	Internal volume	12.0L		12.0L	
	Effective capacity	3.9L		3.9L	

## 「Atsukan Servo」 Basic Model Configuration



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Information in this document is subject to change without notice.

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