

# AS-20 ADJUSTABLE TYPE

## MULTI-APERTURE ORIFICE

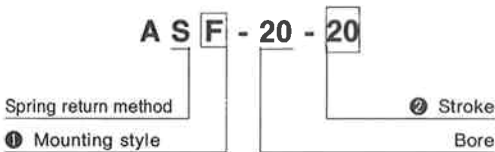


AS COMPARED WITH THE 11 SERIES, IT IS A SIZE LARGE TYPE. WITH THE CHANGE OF MOVING LOAD ENERGY, IT IS IDEAL FOR WORK OF COMPARATIVELY LARGE ENERGY CAPACITY.

- As it is the variable orifice type, the equivalent load is in the range set for each type. And if it is in the max. energy range, the non-phase adjustment is available.
- The economical shock absorber can be selected with the smaller resisting force than the single aperture orifice by adjusting correctly.
- To cope with the fluctuation of actual equivalent load, it is designed for the wide range of adjustment.

## CODE

For order, specify the following code.



## SYMBOL EXPLANATION

①	Mounting style	
	F	Front flange mounting
	E	Rear flange mounting
	U	Clevis mounting
②	Stroke(mm)	
	20	50.8
	30	76.2
	60	152.4

## SPECIFICATIONS

Code	F ASE-20-20 U	F ASE-20-30 U	F ASE-20-60 U
Max. energy absorption J	2120	3190	6380
Stroke mm	50.8	76.2	152.4
Max. equivalent load kg	45~45000		
(※1) Max. energy capacity per min. J/min	8920	9600	11700
Impact speed range m/s	7.6		
(※3) Max. resisting force value N	85200	85300	85400
(※2) Rod return force N	382	382	392
(※2) Rod return time s	0.1	0.2	0.3
Max. operating cycle cycle/min	30		
Temperature range °C	-5~+50 (at non-freezing condition)		
Mounting style	F type(Front flange) E type(Rear flange) U type(Clevis)		
Weight kg	F : 21.92	F : 22.94	F : 30.2
	E : 21.92	E : 22.94	E : 30.2
	U : 21.22	U : 22.24	U : 29.7
Accessories	Auxiliary oil tank		

Note : (※1) Max. energy capacity per minute in the table is shown at the ambient temperature of 26.7°C. Max. energy capacity per minute at the ambient temperature T (°C) mentioned as E<sub>2</sub>(J/min) is calculated according to the following formula.

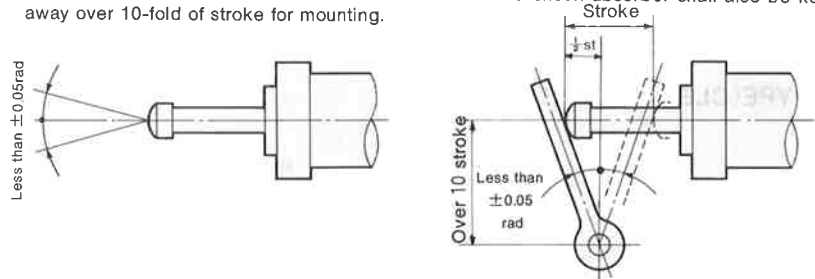
$$E_2 = \frac{(82.2 - T)}{55.5} \times (\text{Max. energy capacity per minute in table})$$

(※2) It indicates the maximum value when full stroke is pushed.

(※3) Max. resisting force value is the value when the appropriate adjustment is conducted.

## PRECAUTIONS FOR HANDLING

- Do not start running the equipment by using a rod return motion when a clevis type is used. Also, do not use a rod return and as stopper for the shock absorber.
- When shock absorber is mounted, the impact objects shall be applied on the center line of rod. In the impact at rotation, the work shall be set at right angle with piston rod at the half of stroke of shock absorber. And the rotation center and shock absorber shall also be kept away over 10-fold of stroke for mounting.



- Do not use in such environment that cutting oil and other liquids are adhered to piston rod.
- Do not use 2 shock absorbers in parallel.
- In case of the installation of external stopper, it shall be mounted so that work stops at position 2mm before stroke end.

## ADJUSTMENT METHOD

- In case of setting at the outset, the adjusting dial shall be set at the equivalent load for application.
- Turn the adjusting dial to the larger equivalent load in case that the shock at stroke end is large with the impact of moving objects. Turn the adjusting dial to the smaller equivalent load in case of the suspension on way of stroke and the large shock at the outset of impact.
- Do not turn the adjusting dial in the range of red belt of mark.
- To tighten the lock, turn the lock screw in a tightening direction, and tighten it to a half rotation position until tip of the screw touches the end.
- The adjusting dial shall be used usually when locked.

## WORKING FLUIDS

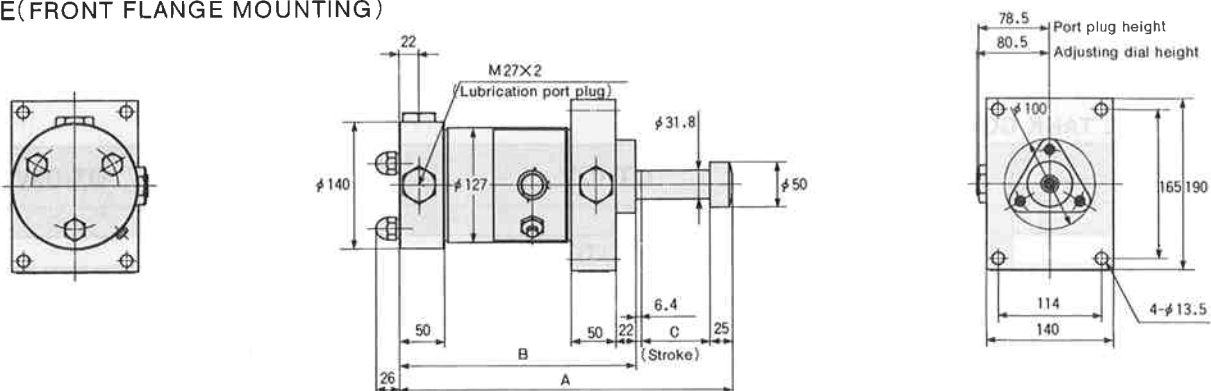
- To supply hydraulic oil use our recommended oil.

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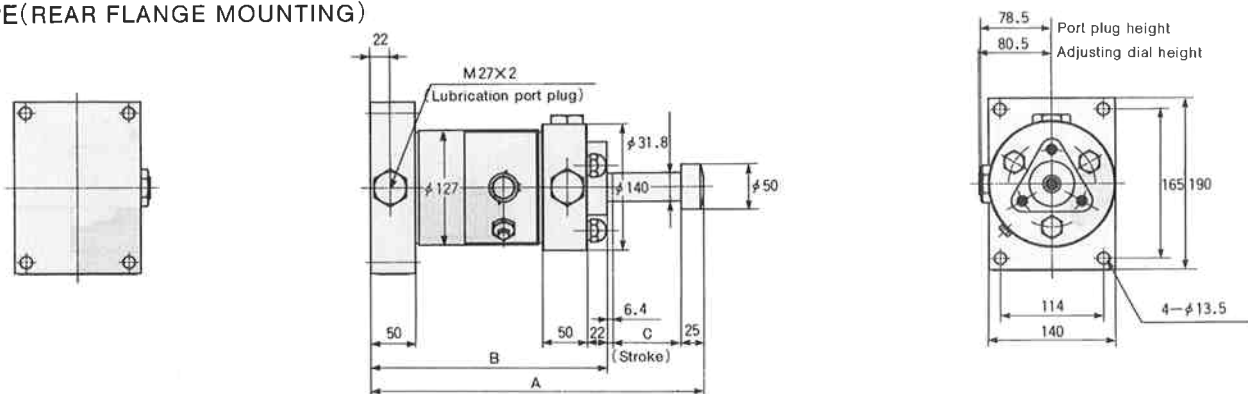
## DIMENSIONAL DRAWINGS

Unit : mm

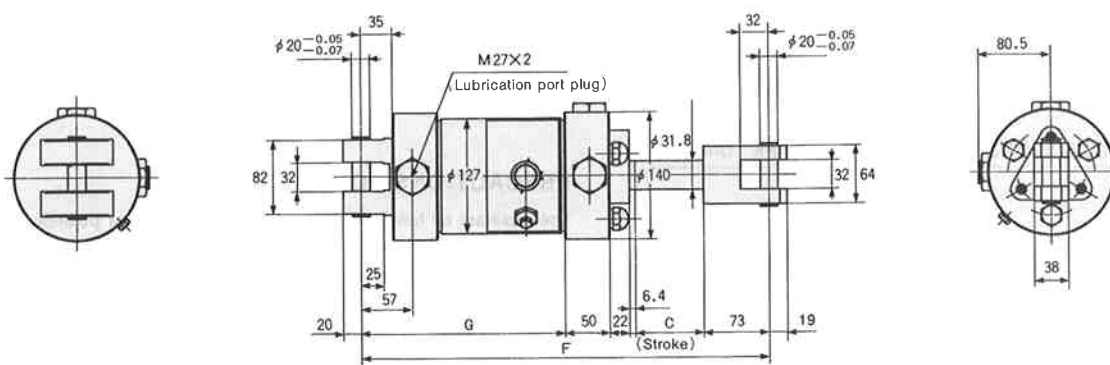
### F TYPE(FRONT FLANGE MOUNTING)



### E TYPE(REAR FLANGE MOUNTING)



### U TYPE(CLEVIS MOUNTING)



## DIMENSIONAL TABLE

Code	Stroke	Symbol	A	B	C	F	G
AS*-20-20	20		324.3	242.1	50.8	407.3	205.1
AS*-20-30	30		370.1	262.5	76.2	453.1	225.5
AS*-20-60	60		586.9	403.1	152.4	669.9	366.1