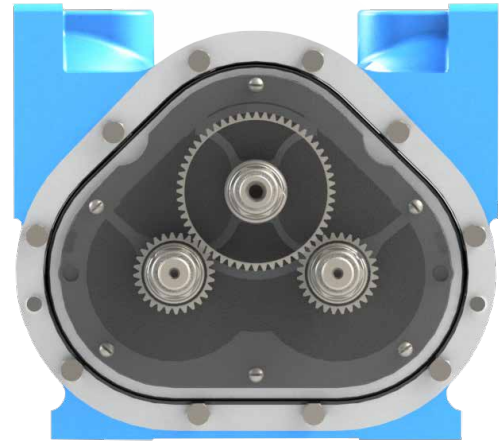


Design Principle

The TCS 700 series rotary flow meter has a simple and efficient meter design consisting of a housing and three rotors that rotate in unison within the measuring chamber. The absence of wear, from no metal-to-metal contact within the chamber, eliminates any deterioration in accuracy and provides a long service life. The rotors are supported by bearings inserted into two bearing plates, where at the end of each rotor shaft is a timing gear. The timed rotation between each rotor is then transferred through the calibration adjuster to the register, giving a consistent and superior measurement of accuracy.



Performance Features

The TCS 700 rotary flow meter combines excellent accuracy with low pressure drop. The TCS 700 rotary flow meter has a compact size and lightweight design that offers minimal maintenance and long service life. This meter is built with advanced materials of construction for a broad range of measurement applications and is accompanied by a full selection of accessories and electronic registration.

FLOW:	Capable of up to 1,000 GPM (3,785 LPM); Bi-directional flow
LINEAR ACCURACY:	Capable of $\pm 0.15\%$ over the full flow range
REPEATABILITY:	Capable of 0.02% (constant operation conditions with 700SP meters & mechanical registration, using 1 CPS test fluid)
VISCOSITY:	Will accurately measure liquids up to 1,500,000 SSU (325,000 CPS)
REGULATORY:	Meets a wide range of global weights and measures requirements. (Contact factory for information on specific approvals.)

Meter Operating Specifications

Meter	Type(s) Available	Flange Connection(s)*	Max. Capacity	Working Pressure**	Working Temperature***
700-15	SP, SPA, IP & IC	1 1/2" NPT Flange; 1" & 2" Options	60 GPM (227 LPM)	150 PSI (10.5 BAR)	-40°F to 160°F (-40°C to 71°C)
700-20	SP, SPA, SPD, IP, IC, AF, SS, SSD & LP	2" NPT Flange; 1 1/2" Option	100 GPM (380 LPM)	150 PSI (10.5 BAR)	-40°F to 160°F (-40°C to 71°C)
700-25	SPA & SPD	2" NPT Flange	150 GPM (567 LPM)	150 PSI (10.5 BAR)	-40°F to 160°F (-40°C to 71°C)
700-30	SP, SPA, SPD, IP, IC & AF	3" NPT Flange; 2" Option	200 GPM (760 LPM)	150 PSI (10.5 BAR)	-40°F to 160°F (-40°C to 71°C)
700-35	SPA & SPD	3" NPT Flange	300 GPM (1,135 LPM)	150 PSI (10.5 BAR)	-40°F to 160°F (-40°C to 71°C)
700-40	SP, SPA, SPD, IP, IC & AF	4" NPT Flange; 3" Option	500 GPM (1,893 LPM)	150 PSI (10.5 BAR)	-40°F to 160°F (-40°C to 71°C)
700-45	SPA & SPD	4" NPT Flange	600 GPM (2,271 LPM)	150 PSI (10.5 BAR)	-40°F to 160°F (-40°C to 71°C)
700-60	SPA	6" ANSI Flange	800 GPM (3,040 LPM)	150 PSI (10.5 BAR)	-40°F to 160°F (-40°C to 71°C)
700-65	SPA	6" ANSI Flange	1000 GPM (3,800 LPM)	150 PSI (10.5 BAR)	-40°F to 160°F (-40°C to 71°C)

* Flanged NPT is standard; BSPT, Slip Weld, ANSI & others are available upon request

** Higher working pressures are available. (Consult factory for more information.)

*** Higher working temperatures can be achieved at reduced pressures. (Consult factory for more information.)

