

# CARBOY-SCALE™

FOR MUNICIPAL & INDUSTRIAL CHEMICAL FEED SYSTEMS



## DESIGN & OPERATION

FORCE FLOW'S CARBOY-SCALE ALLOWS OPERATORS TO MORE ACCURATELY CONTROL CHEMICAL USAGE IN MUNICIPAL AND INDUSTRIAL CHEMICAL FEED SYSTEMS. A LOW OVERALL HEIGHT OF ONLY 1-5/8" ALLOWS CARBOYS TO BE EASILY ROLLED ON AND OFF WITHOUT LIFTING. AVAILABLE WITH EITHER A HYDRAULIC LOAD CELL SYSTEM THAT REQUIRES NO POWER, OR AN ELECTRONIC LOAD CELL SYSTEM THAT FEATURES THE ADVANCED DATA TRENDRING FUNCTIONS OF THE WIZARD 4000\* INDICATOR.

## IDEAL FOR CARBOYS

IDEAL FOR MONITORING A VARIETY OF CHEMICALS, SUCH AS: FLUORIDE, SODIUM HYPOCHLORITE, POLYMER, SODIUM BISULFITE, SODIUM HYDROXIDE, CAUSTIC, POTASSIUM PERMANGANATE, ALUM, HYDROGEN PEROXIDE AND MANY OTHER SELF-CENTERING LIQUIDS WHICH COME IN 5- TO 50-GALLON DRUMS AND CARBOYS.

## SIMPLE & RUGGED DESIGN

PART OF ANY WELL ENGINEERED PRODUCT IS SIMPLICITY OF DESIGN. THE SIMPLER THE DESIGN, THE FEWER THE POTENTIAL PROBLEMS. THE CARBOY-SCALE CONSISTS OF A PIVOTED PLATFORM AND A RUGGED LOAD CELL SYSTEM.

SIMPLE TO INSTALL !!  
SIMPLE TO OPERATE !!  
SIMPLE TO MAINTAIN !!

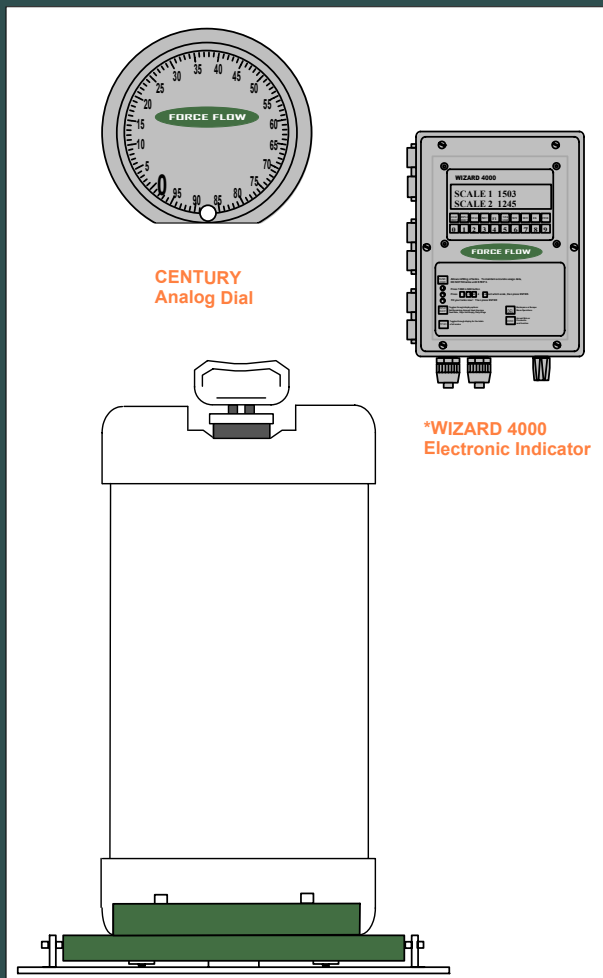
INSTALLATION IS EXTREMELY SIMPLE: INDICATOR ATTACHES TO THE WALL AND LAG BOLTS SECURE THE SCALE PLATFORM TO THE FLOOR.

## FEATURES

- FULL 5-YEAR WARRANTY
- LOW PROFILE - ROLL A CARBOY ON AND OFF WITHOUT LIFTING.
- ACCOMMODATES CARBOYS FROM 8" TO 24" IN DIAMETER (APPROX. 5- TO 50-GALLONS)
- 4-20 MA SIGNAL STANDARD ON ELECTRONIC SCALE AND AVAILABLE ON HYDRAULIC SYSTEMS
- LOW LEVEL ALARMS AVAILABLE
- TUF-COAT ENVIRONMENTAL ARMOR PROTECTED PLATFORM

**FORCE FLOW**

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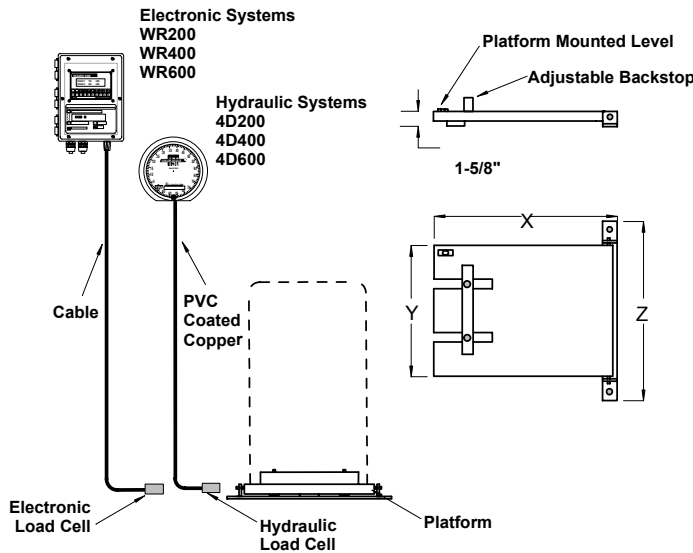


\*SEE ALSO WIZARD 4000 BULLETIN

# CARBOY-SCALE FOR MUNICIPAL & INDUSTRIAL CHEMICAL FEED SYSTEMS

## MODELS & ORDERING INFORMATION

STANDARD MODEL IS SIZED TO ACCEPT CARBOYS 8" TO 24" IN DIAMETER. HYDRAULIC SCALE COMES COMPLETE WITH PLATFORM, LOAD CELL WITH 6' PVC COATED COPPER TUBING, AND 4-1/2" DIAL READOUT. ELECTRONIC SCALE COMES COMPLETE WITH PLATFORM, LOAD CELL WITH 10' CABLE AND WIZARD 4000 INDICATOR WITH 4-20 MA OUTPUT.



TECHNICAL DATA			
CAPACITY	200 lb.	400 lb.	600 lb.
X	18-1/2" (470mm)	21-3/4" (546mm)	24" (610mm)
Y	13-1/2" (343mm)	15-3/4" (400mm)	24" (610mm)
Z	16-1/2" (419mm)	18-3/4" (475mm)	27" (686mm)
Max Dia.	16"	19"	24"

MODEL NO.	DESCRIPTION
<b>HYDRAULIC Models</b>	
4D200	0-200 lb. Hydraulic Carboy Scale
4D400	0-400 lb. Hydraulic Carboy Scale
4D600	0-600 lb. Hydraulic Carboy Scale
MA150 (option)	4-20 mA Transmitter
RS150 (option)	Low Level Alarm
<b>ELECTRONIC Models w/4-20mA Output</b>	
WR200	0-200 lb. Electronic Carboy Scale
WR400	0-400 lb. Electronic Carboy Scale
WR600	0-600 lb. Electronic Carboy Scale
W5ASP (option)	Level Alarm Contact

NOTE: For multiple platform scales or an explosion proof transmitter is required, consult factory.

## SPECIFICATION

### TYPICAL SPECIFICATION FOR CARBOY SCALE

#### HYDRAULIC SCALE SPEC:

CARBOY SCALE SHALL BE OF THE SINGLE LOAD CELL TYPE. SCALE PLATFORM SHALL BE CONSTRUCTED OF NONCORROSIVE PVC PLASTIC AND SIZED TO ACCEPT A CARBOY FROM 8" TO 24" IN DIAMETER.

LOAD CELL SHALL BE OF THE TEMPERATURE STABLE, ROLLING DIAPHRAGM TYPE. FLEXIBLE PVC COATED COPPER TUBING SHALL LEAD FROM THE LOAD CELL TO ALLOW EASY WALL MOUNTING OF THE DIAL AND SHALL BE \_\_\_\_\_ FEET IN LENGTH (6 FEET STANDARD). LOAD CELL SYSTEM SHALL REQUIRE NO ELECTRIC POWER.

DIAL DIAMETER SHALL BE AT LEAST 4-1/2" AND READ ZERO TO \_\_\_\_\_ (200 OR 400) LBS. NET WITH PROVISION FOR TARE ADJUSTMENT.

DIAL SHALL BE READABLE IN .5 LB. INCREMENTS.

FULL SCALE ACCURACY SHALL BE BETTER THAN 1%. SCALE SHALL CARRY A FULL FIVE (5) YEAR FACTORY WARRANTY. "LIMITED" WARRANTIES SHALL BE CONSIDERED UNACCEPTABLE.

SCALE SHALL BE CARBOY-SCALE, MODEL 4D \_\_\_\_\_ AS MANUFACTURED BY FORCE FLOW, 1150-D BURNETT AVE, CONCORD, CA USA PH: 925-893-6723, FAX: 925-686-6713 INFO@FORCEFLOW.COM

#### ELECTRONIC SCALE SPEC:

CARBOY SCALE SHALL BE OF THE SINGLE LOAD CELL TYPE. SCALE PLATFORM SHALL BE CONSTRUCTED OF NONCORROSIVE PVC PLASTIC AND SIZED TO ACCEPT A CARBOY FROM 8" TO 24" IN DIAMETER.

SCALE SHALL BE OF THE SINGLE LOAD CELL DESIGN. WEIGHT SHALL BE TRANSFERRED VIA PIVOTED PLATFORM TO A SINGLE LOAD CELL OF THE STAINLESS STEEL STRAIN GAUGE TYPE. FLEXIBLE CABLE SHALL CONNECT LOAD CELL TO INDICATOR TO ALLOW EASY REMOTE INSTALLATION OF THE READOUT. CABLE LENGTH SHALL BE \_\_\_\_\_ (10' STANDARD).

INDICATOR SHALL BE HOUSED IN A NEMA 4X, UL APPROVED ENCLOSURE. INDICATOR SHALL INDEPENDENTLY MONITOR \_\_\_\_\_ (UP TO 4) SCALE(S) OF THE SAME CAPACITY, AS WELL AS MONITOR THE TOTALS OF \_\_\_\_\_ (UP TO 4) SCALE(S). EACH CHANNEL SHALL DISPLAY NET REMAINING, DAILY USAGE, TOTAL AMOUNT USED, RATE OF FEED, DAYS UNTIL EMPTY, TARE WEIGHT AND GROSS WEIGHT. A DATA LOG FUNCTION SHALL STORE THE DAILY USAGE FOR EACH OF THE PREVIOUS 10 DAYS.

DUAL DISPLAY SHALL BE A 2 LINE, 16 CHARACTERS PER LINE ALPHANUMERIC LCD WITH BACK LIGHTING. INDICATOR SHALL BE READABLE IN 0.2 LB. INCREMENTS. INDICATOR SHALL BE EQUIPPED WITH A 10 KEY NUMERIC PAD WITH TACTILE AND AUDIBLE FEEDBACK FOR EASY ENTRY OF TARE AND LOW-LEVEL VALUES. ALL FUNCTIONS SHALL BE MENU PROMPTED FOR EASE OF OPERATION.

A USER SELECTABLE OPERATION MODE SHALL ALLOW THE OPERATOR TO AUTOMATICALLY LOAD THE NET WEIGHT OF A FULL CONTAINER OR MANUALLY ENTER TANK TARE WEIGHT TO GET THE NET CHEMICAL WEIGHT.

EACH CHANNEL (SCALE) SHALL HAVE AN INDEPENDENT, ADJUSTABLE 4-20 MA SIGNAL (NET WEIGHT OR FEED RATE).

FULL SCALE ACCURACY SHALL BE BETTER THAN 1%. SCALE SHALL CARRY A FULL FIVE (5) YEAR FACTORY WARRANTY. "LIMITED" WARRANTIES SHALL BE CONSIDERED UNACCEPTABLE.

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