IWAKI AIR

TC-X401/TC-X501/TC-X801 SERIES
1-1/2”, 2” AND 3” AODD PUMPS

APRIL 2019 LAUNCH
PRODUCT PRESENTATION

ABOUT IWAKI AMERICA

CONSISTS OF FOUR DIVISIONS

- IWAKI PUMPS
  - Non-Metallic Mag-Drive Chemical Transfer Pumps
  - SANWA Stainless Steel Chemical Transfer Pumps
- WALCHEM
  - Water Treatment Controllers
  - Metering Pumps
- IWAKI AQUATIC
  - Engineered Aquatic Research Systems
- **IWAKI AIR AODD**
  - **Industrial and Pure PTFE Air-Operated Double Diaphragm Pumps**

NEW PRODUCT INTRODUCTION

TC-X SERIES 1-1/2”, 2” & 3” AODD PUMPS WITH LOOPED C® AIR MOTOR

TC-X401 SERIES

TC-X801 SERIES

TC-X501 SERIES

MULTIPLE CONFIGURATIONS AVAILABLE

WETTED MATERIALS:

GFR POLYPROPYLENE, PVDF*, ALUMINUM, STAINLESS STEEL, CAST IRON

ELASTOMER OPTIONS:

PTFE, NEOPRENE, BUNA-N, HYTREL, SANTOPRENE, EPDM, VITON

MATERIALS TO MEET ALL OF YOUR CHEMICAL TRANSFER NEEDS

(*) Not Available with 3” Models

401/501/801 PRODUCT OVERVIEW

- Developed as an alternative to the Mechanical Coil Spring Air Motor available on the TC-X400, TC-X500 and TC-X800 Series
- Available with Looped C® Sleeve and Spool Air Motor
- Features Ekonol ® seal rings and fully independent Pilot Valves for increased performance, reliability and extended life
- Large solids passage: up to 7mm for TC-X400, 8mm for TC-X500 and 10mm for TC-X800
- 100% Oil lubrication free
- All models have externally accessible Looped C® Air Motor Sleeve and Spool Patent Pending design

401/501/801 STRATEGIC PRODUCT PRICING

CUSTOMER-FRIENDLY PRICING STRATEGY

• TC-X400VS-FLA	Mechanical Valve	List Price $ 4,600
• TC-X401VS-FLA	New Sleeve & Spool Valve	List Price $ 4,350 ($ 250 less)
• TC-X500AN-NPT	Mechanical Valve	List Price $ 1,380
• TC-X501AN-NPT	New Sleeve & Spool Valve	List Price $ 1,130 ($ 250 less)
• TC-X800PS-FLA	Mechanical Valve	List Price $ 5,800
• TC-X801PS-FLA	New Sleeve & Spools Valve	List Price $ 5,550 ($ 250 less)

All of the New TC-X401/501/801 Series are strategically priced $250 less than the TC-X400/500/800 Series to allow for the end-user economically upgrade to the Mechanical Valve Depending on the Application

NEW TC-X401/501/801 MODEL LOOPED C® AIR MOTOR

- Mechanical assisted Non-Centering Sleeve & Spool design
  - Durable and long-lasting requiring very little maintenance
- High-Tech and Modern Material of Construction
  - Best technology available in the marketplace today
- High-Performance Looped C® Springs
  - Resist stalling and provides trouble-free operation
- Newly improved Spring Retainer
  - Allows for smoother operation and even more reliable service
- Ekanol® Seal Rings
  - Has excellent temperature and wear resistance surfaces and services
- Increased Performance and Extended Life Expectancy
  - Lowest Total Cost of Ownership

CURRENT TC-X400/500/800 MODEL AIR MOTOR

- Utilizes Mechanically Assisted Coil-Spring Air Spool
- Designed for High Performance operation with excellent reliability
- Utilizes high-tech specialty materials
- Well suited for frequent start/stop/deadhead/high backpressure applications as well as high head and extended discharge piping
- Can achieve high flow rates efficiently and reliably
- 100% Externally accessible
- Resists freezing and stalling in all conditions
- Oil and grease lubrication free

TC-X 401 SERIES MODEL DETAILS

TC-X401 SERIES AODD PUMP NOMENCLATURE DETAILS		
NOMENCLATURE	**CODE**	**CODE DESCRIPTIONS AND OPTIONS**
AODD PUMP SERIES	**TC-X**	**TC-X** = TWIN CHAMBER; EXPORT
SERIES MODEL	**401**	**401** = 1-1/2" INLET/OUTLET SIZE
WET END MATERIAL	**A**	**P**=GFRPP; **V**=CFPVDF; **A**=ALUMINUM; **S**=STAINLESS STEEL; **F**=CAST IRON
DIAPHRAGM MATERIAL	**S**	**C**=NEOPRENE; **E**=EPDM; **N**=BUNA-N; **H**=HYTREL; **S**=SANTOPRENE; **V**=VITON; **T**=PTFE
-	-	-
CONNECTION TYPE	**FLA**	**NPT**=FEMALE NOMINAL PIPE THREADS (NPT); **FLA**=ANSI 150# FLANGES
OPTION CODES (LISTED IN PRICE BOOK)	**XXX**	*MOST COMMON:* **SB**=SANTOPRENE BACKED; **PDR**=POWDER PUMP; **AP**=ABRASION PADS; **HP**-2:1 HIGH PRESSURE; **FDA**=FDA COMPLIANT; **HB**=CONDUCTIVE HYTREL BACKUP DIAPHRAGMS (FOR ATEX)

SPECIFICATION BY MODEL CONFIGURATION	TC-X401 SERIES PUMP PORTFOLIO RANGE									
	TC-X401P(X)	TC-X401V(X)	TC-X401PT	TC-X401VT	TC-X401A(X)	TC-X401S(X)	TC-X401F(X)	TC-X401FT	TC-X401ST	TC-X401FT
AIR MOTOR MATERIAL	ALUMINUM									
AIR MOTOR TYPE	LOOPED C® SLEEVE & SPOOL DESIGN (PATENT PENDING)									
MAX FLOW RATE	118.9 GPM (390 LPM)		95.1 GPM (360 LPM)		158.5 GPM (600 LPM)			118.9 GPM (450 LPM)		
MAX SOLIDS SIZE	.276" (7.0 mm)				.315" (8.0 mm)					
MAX DISCHARGE PRESSURE	100 PSI (0.7 MPa)				125 PSI (0.85 MPa)			100 PSI (0.7 MPa)		
INLET AIR PRESSURE RANGE	30 - 100 PSI (0.2 - 0.7 MPa)				30 - 125 PSI (0.2 - 0.85 MPa)			30 - 100 PSI (0.2 - 0.7 MPa)		
MAX SUCTION LIFT	RUBBER (DRY)=16'5"; RUBBER (PRIMED)=26'3"; PTFE (DRY)=6'6"				RUBBER (DRY)=18'05"; RUBBER (PRIMED)=26'3"; PTFE (DRY)=9'10"					
MAX AIR CONSUMPTION	124.1 SCFM (3500 LPM-ANR)		159.6 SCFM (4500 LPM-ANR)		117.3 SCFM (5000 LPM-ANR)			159.6 SCFM (4500 LPM-ANR)		
DISPLACEMENT PER CYCLE	.74 GAL (2800 mL)		.37 GAL (1400 mL)		.74 GAL (2800 mL)			.37 GAL (1400 mL)		
CONNECTION TYPE	1-1/2" ANSI 150# FLANGED CENTER PORTS				1-1/2" FEMALE NOMINAL PIPE THREAD (FNPT); 1-1/2" ANSI 150# FLANGED CENTER PORTS					

TC-X 501 SERIES MODEL DETAILS

TC-X501 SERIES AODD PUMP NOMENCLATURE DETAILS		
NOMENCLATURE	**CODE**	**CODE DESCRIPTIONS AND OPTIONS**
AODD PUMP SERIES	**TC-X**	**TC-X** = TWIN CHAMBER; EXPORT
SERIES MODEL	**501**	**501** = 2" INLET/OUTLET SIZE
WET END MATERIAL	**A**	**P**=GFRPP; **V**=CFPVDF; **A**=ALUMINUM; **S**=STAINLESS STEEL; **F**=CAST IRON
DIAPHRAGM MATERIAL	**S**	**C**=NEOPRENE; **E**=EPDM; **N**=BUNA-N; **H**=HYTREL; **S**=SANTOPRENE; **V**=VITON; **T**=PTFE
-	-	-
CONNECTION TYPE	**FLA**	**NPT**=FEMALE NOMINAL PIPE THREADS (NPT); **FLA**=ANSI 150# FLANGES
OPTION CODES (LISTED IN PRICE BOOK)	**XXX**	*MOST COMMON:* **SB**=SANTOPRENE BACKED; **PDR**=POWDER PUMP; **AP**=ABRASION PADS; **HP**-2:1 HIGH PRESSURE; **FDA**=FDA COMPLIANT **HB**=CONDUCTIVE HYTREL BACKUP DIAPHRAGMS (FOR ATEX)

SPECIFICATION BY MODEL CONFIGURATION	TC-X501 SERIES PUMP PORTFOLIO RANGE									
	TC-X501P(X)	TC-X501V(X)	TC-X501PT	TC-X501VT	TC-X501A(X)	TC-X501S(X)	TC-X501F(X)	TC-X501FT	TC-X501ST	TC-X501FT
AIR MOTOR MATERIAL	ALUMINUM									
AIR MOTOR TYPE	LOOPED C® SLEEVE & SPOOL DESIGN (PATENT PENDING)									
MAX FLOW RATE	166.4 GPM (630 LPM)		153.2 GPM (580 LPM)		206.1 GPM (780 LPM)			153.2 GPM (580 LPM)		
MAX SOLIDS SIZE	.315" (8.0 mm)									
MAX DISCHARGE PRESSURE	100 PSI (0.7 MPa)				125 PSI (0.85 MPa)			100 PSI (0.7 MPa)		
INLET AIR PRESSURE RANGE	30 - 100 PSI (0.2 - 0.7 MPa)				30 - 125 PSI (0.2 - 0.85 MPa)			30 - 100 PSI (0.2 - 0.7 MPa)		
MAX SUCTION LIFT	RUBBER (DRY)=16'5"; RUBBER (PRIMED)=26'3"; PTFE (DRY)=6'6"				RUBBER (DRY)=18'05"; RUBBER (PRIMED)=26'3"; PTFE (DRY)=9'10"					
MAX AIR CONSUMPTION	194.3 SCFM (5500 LPM-ANR)		211.9 SCFM (6000 LPM-ANR)		229.5 SCFM (6500 LPM-ANR)			211.8 SCFM (6000 LPM-ANR)		
DISPLACEMENT PER CYCLE	.925 GAL (3500 mL)		.528 GAL (2000 mL)		.925 GAL (3500 mL)			.528 GAL (2000 mL)		
CONNECTION TYPE	2" ANSI 150# FLANGED CENTER PORTS				2" FEMALE NOMINAL PIPE THREAD (FNPT); 2" ANSI 150# FLANGED CENTER PORTS					

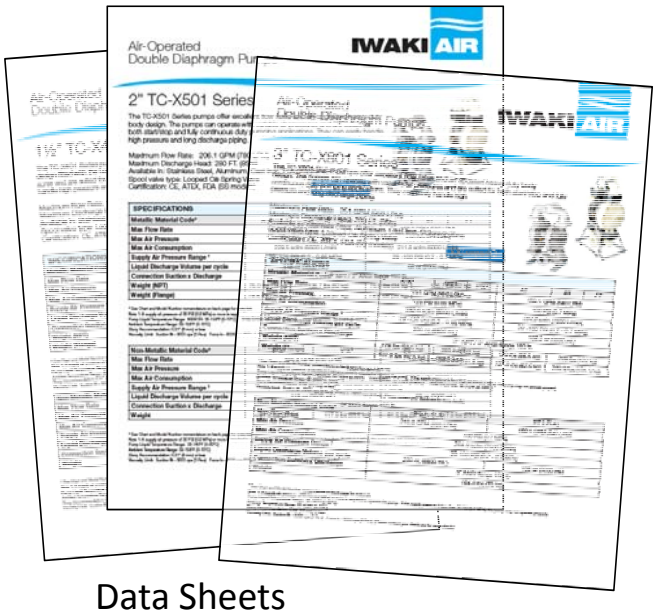
TC-X 801 MODEL DETAILS

TC-X801 SERIES AODD PUMP NOMENCLATURE DETAILS		
NOMENCLATURE	**CODE**	**CODE DESCRIPTIONS AND OPTIONS**
AODD PUMP SERIES	**TC-X**	**TC-X** = TWIN CHAMBER; EXPORT
SERIES MODEL	**801**	**801** = 2" INLET/OUTLET SIZE
WET END MATERIAL	**A**	**P**=GFRPP; **A**=ALUMINUM; **S**=STAINLESS STEEL; **F**=CAST IRON
DIAPHRAGM MATERIAL	**S**	**C**=NEOPRENE; **E**=EPDM; **N**=BUNA-N; **H**=HYTREL; **S**=SANTOPRENE; **V**=VITON; **T**=PTFE
-	-	-
CONNECTION TYPE	**FLA**	**NPT**=FEMALE NOMINAL PIPE THREADS (NPT); **FLA**=ANSI 150# FLANGES
OPTION CODES (LISTED IN PRICE BOOK)	**XXX**	*MOST COMMON:* **SB**=SANTOPRENE BACKED; **PDR**=POWDER PUMP; **AP**=ABRASION PADS; **HP**-2:1 HIGH PRESSURE; **FDA**=FDA COMPLIANT **HB**=CONDUCTIVE HYTREL BACKUP DIAPHRAGMS (FOR ATEX)

TC-X801 SERIES

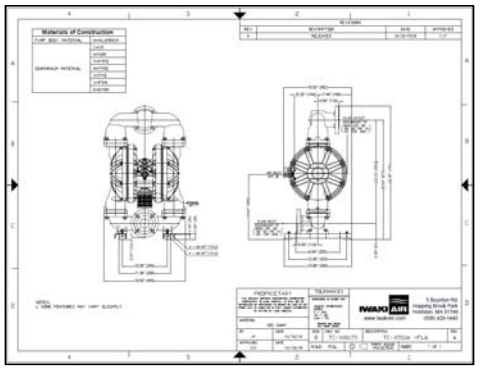
SPECIFICATION BY MODEL CONFIGURATION	TC-X801 SERIES PUMP PORTFOLIO RANGE									
	TC-X801P(X)	TC-X801V(X)	TC-X801PT	TC-X801VT	TC-X801A(X)	TC-X801S(X)	TC-X801F(X)	TC-X801FT	TC-X801ST	TC-X801FT
AIR MOTOR MATERIAL	ALUMINUM									
AIR MOTOR TYPE	LOOPED C® SLEEVE & SPOOL DESIGN (PATENT PENDING)									
MAX FLOW RATE	216.6 GPM (820 LPM)		169.1 GPM (640 LPM)		251.0 GPM (950 LPM)			169.1 GPM (640 LPM)		
MAX SOLIDS SIZE	.394" (10.0 mm)									
MAX DISCHARGE PRESSURE	100 PSI (0.7 MPa)				125 PSI (0.85 MPa)			100 PSI (0.7 MPa)		
INLET AIR PRESSURE RANGE	30 - 100 PSI (0.2 - 0.7 MPa)				30 - 125 PSI (0.2 - 0.85 MPa)			30 - 100 PSI (0.2 - 0.7 MPa)		
MAX SUCTION LIFT	RUBBER (DRY)=16'5"; RUBBER (PRIMED)=26'3"; PTFE (DRY)=6'6"				RUBBER (DRY)=18'05"; RUBBER (PRIMED)=26'3"; PTFE (DRY)=9'10"					
MAX AIR CONSUMPTION	264.9 SCFM (7500 LPM-ANR)				282.6 SCFM (8000 LPM-ANR)			264.9 SCFM (7500 LPM-ANR)		
DISPLACEMENT PER CYCLE	1.796 GAL (6800 mL)		.845 GAL (3200 mL)		1.796 GAL (6800 mL)			.845 GAL (3200 mL)		
CONNECTION TYPE	3" ANSI 150# FLANGED CENTER PORTS				3" FEMALE NOMINAL PIPE THREAD (FNPT); 3" ANSI 150# FLANGED CENTER PORTS					

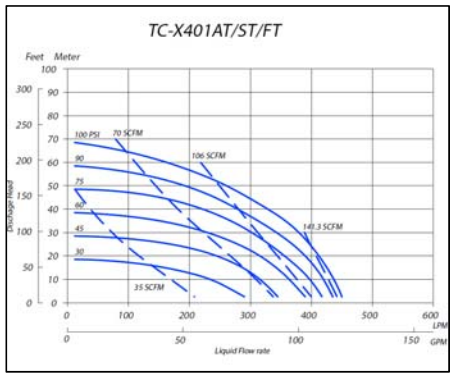
TC-X401/501/801 SERIES PRODUCT SUPPORT MATERIALS



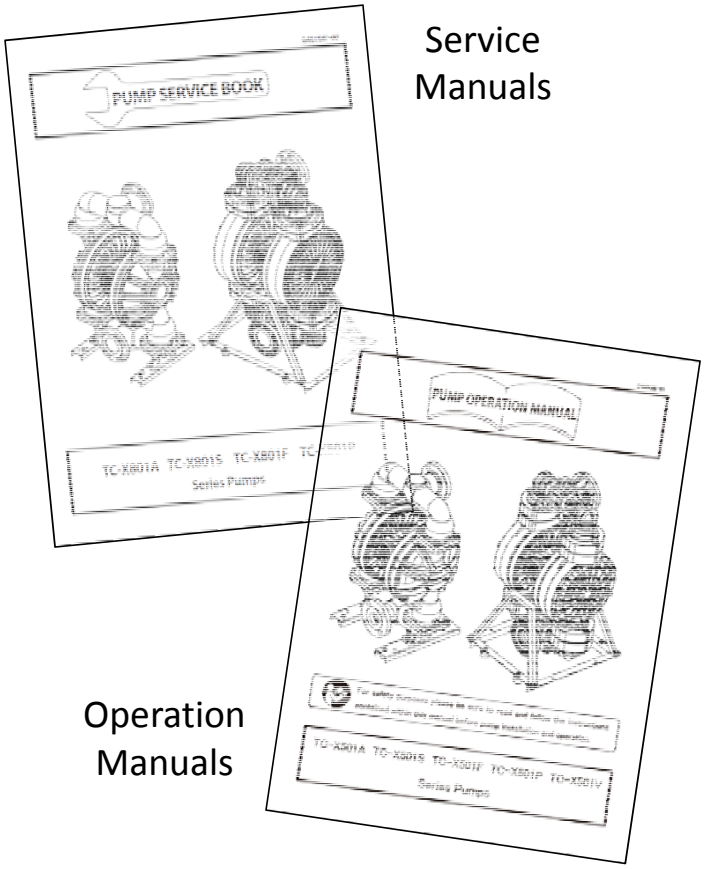
Data Sheets

Drawings





Performance Curves



Service Manuals

Operation Manuals

Available for Download at www.IwakiAIR.com

TC-X401/501/801 MARKETS AND APPLICATIONS

- Tank Unloading
  - Railcar, Truck, Storage
  - Advantages
    - Portable
    - Self Priming

- Chemical Transfer
  - Acids, Alkalis, Waste
  - Advantage
    - Chemical Resistance

TC-X401/501/801 MARKETS AND APPLICATIONS

- Paints & Adhesives
  - Paint, Coatings, Glue, Adhesives, Sealants
  - Advantage
    - Moves High Viscosities, Non-Shearing

- Printing
  - Ink, Cleaners, Binders
  - Advantage
  - Small Size – High Flow
  - Aggressive Properties of Inks

TC-X401/501/801 MARKETS AND APPLICATIONS

- Oil & Gas
  - Oil, Mud, Coolants, Spills
  - Advantage
    - Non-Conductive, Intrinsically Safe

- Refineries
  - Sludge, Cleaners
  - Advantage
    - Non-Conductive
    - Intrinsically Safe

TC-X401/501/801 MARKETS AND APPLICATIONS

- Waste Water
  - Chemicals & Solids
  - Chemical Dosing
  - Advantage
    - Chemical Resistance

- Filter Press
  - Abrasive Solids With High Pressure
  - Advantage
    - Abrasion & Dead Head Resistant
  - High Pressure 2:1 Pumps Available

TC-X401/501/801 MARKETS AND APPLICATIONS

- Food
  - Cleaning, Chemical, Waste
  - Advantage
    - FDA
    - Electro-polished
  - Can be used up to the pasteurizing stage
  - Used often for ingredient batching

- Beverage
  - Cleaning, Dosing, Waste
  - Bottle and can preparation before filling

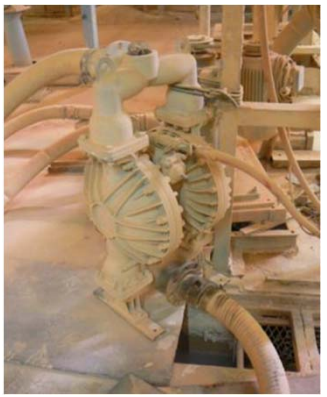
TC-X401/501/801 MARKETS AND APPLICATIONS

- Marine
  - Bilge & Bulk Transfer, Sumping
  - Advantage
    - Robust Construction

- Mining
  - De-Watering, Lubrication
  - Advantage
    - Non-conductive

TC-X401/501/801 MARKETS AND APPLICATIONS

- Ceramics
  - Ceramic Slip & Glaze
  - Advantages
    - Withstands Abrasion



- Road Surface
  - Coatings, Striping,
  - Blacktop
  - Advantage
    - Portable, Air Driven

TC-X401/501/801 MARKETS AND APPLICATIONS

- Plating
  - Chemical, Waste, Flammables
  - Advantage
    - Chemical Resistant
    - Intrinsically Safe

- Pulp & Paper
  - Chemicals, Inks
  - Advantage
    - Multi-Purpose

TC-X401/501/801 MARKETS AND APPLICATIONS

- Textiles
  - Bleach, Colorant, Glue
  - Advantage
    - Multiple Applications
    - Portable

And Many, Many more vertical markets and applications where reliable transfer of all kinds of fluids and fluid types need to be moved safely, efficiently and at the lowest cost possible

You Can Rely on IWAKI AIR to get the job done!!!