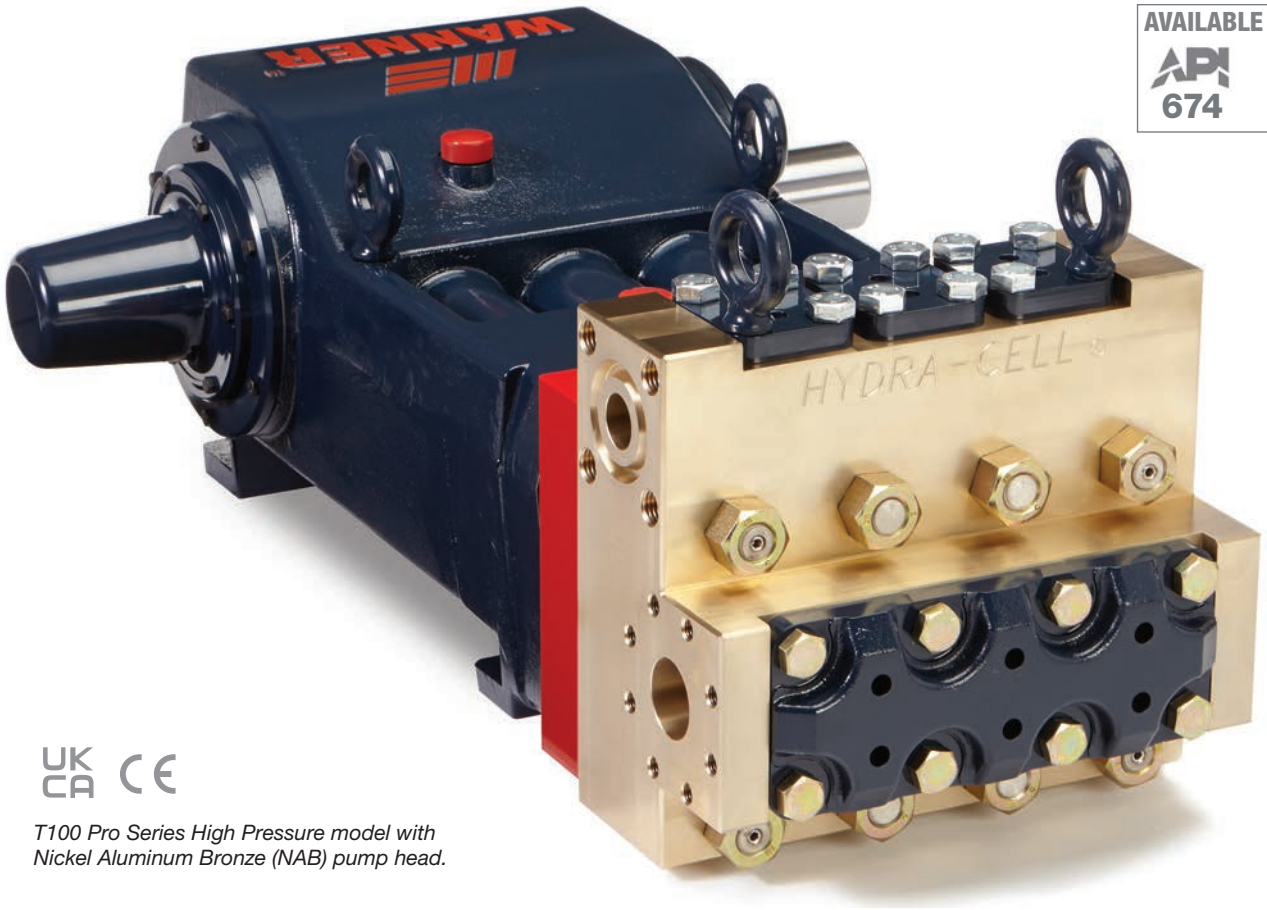
T100 PRO SERIES
HIGH PRESSURE

Maximum Flow Rate: 26 gpm (98 l/min) 891 BPD
Maximum Pressure: 5000 psi (345 bar)

PUMP SUPPLY INCORPORATED

WANNER™ HYDRA-CELL® PRO
SEAL-LESS PUMP TECHNOLOGIES

AVAILABLE TO MEET API 674



UK CA CE

T100 Pro Series High Pressure model with Nickel Aluminum Bronze (NAB) pump head.

A higher standard of pump performance and energy efficiency.

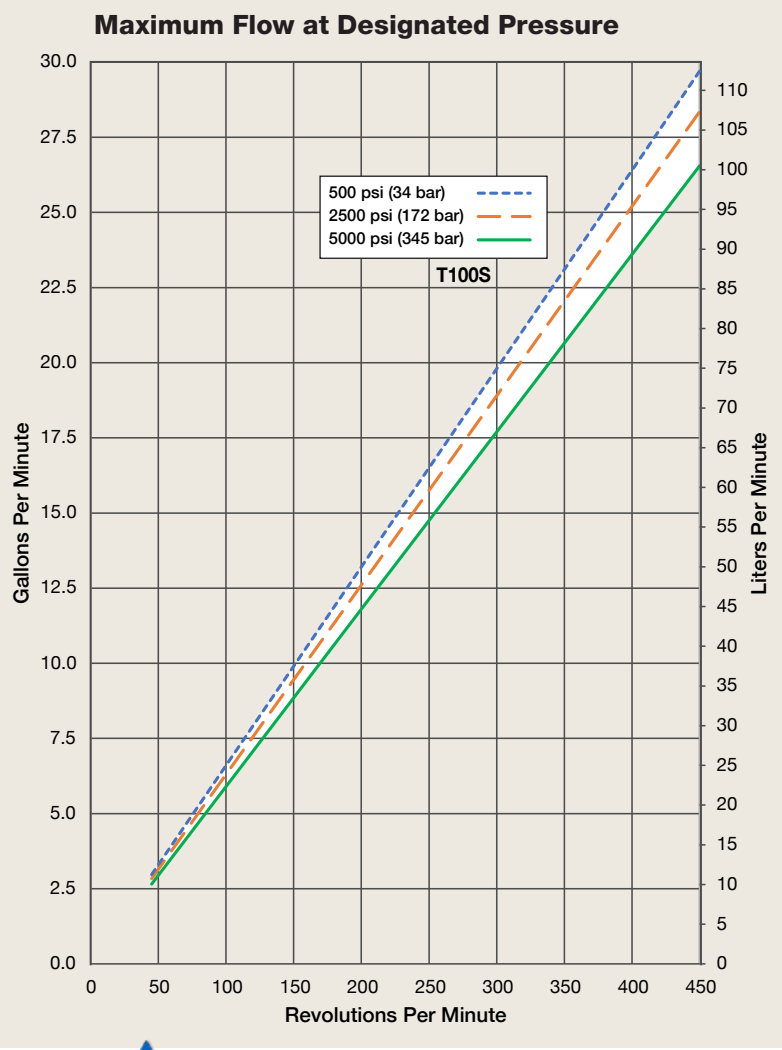
- Integrates **Wanner Hydra-Cell® Pro** seal-less pump technologies for the highest levels of volumetric and energy efficiencies across a full rpm range.
- Patented ADPC (Advanced Diaphragm Position Control) and hydraulic oil management system protect diaphragms under closed or restricted inlet conditions.
- Can run dry indefinitely without damage to the pump.
- Pumped fluid is 100% contained – zero environmental impact, no ground contamination, no volatile emissions.
- Seal-less design eliminates leaks, hazards, and the expense associated with seals and plunger packing.
- Exceeds API 675 standards for accuracy, linearity, and repeatability.
- Reliably handles a wide range of viscosities and shear sensitivities, corrosive fluids, abrasives, slurries and particulates.
- Reduced ownership costs – acquisition, operation, service, maintenance and energy use.

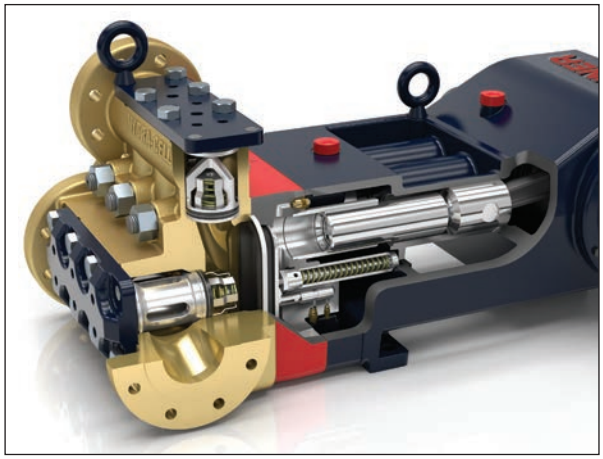
T100 Pro High Pressure | Performance

Capacities

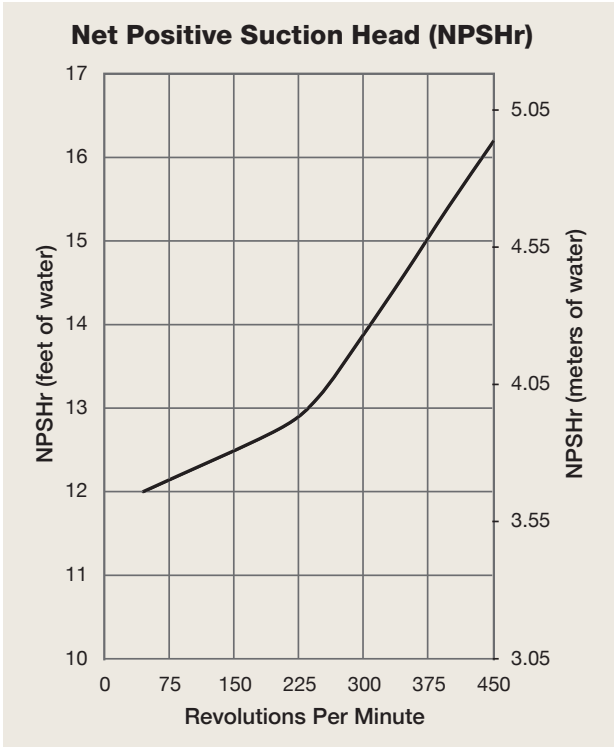
Model	Max. Input rpm	Plunger Dia. inches	mm	Max. Flow Capacities gpm	l/min	BPD	Max. Pressure Ratings Discharge psi	bar	Inlet psi	bar
T100S	450	1.375	35	26	98	891	5000	345	500	34

Consult factory when operating below 45 rpm





T100 Pro Series pumps feature the Hydra-Cell seal-less design, eliminating clean-up costs from leaking seals or packing and protecting operators from dangerous fluids such as those containing hydrogen sulfide.



PUMP SUPPLY INCORPORATED

Illinois Location:
(847) 841-7867
860 Church Rd Elgin, IL 60123

Minnesota Location:
(651) 758-7867
330 Mill Bay South Suite 1511 Afton, MN 55001

Due to the Wanner Engineering Continuous Improvement Program, specifications and other data are subject to change.

T100 Pro High Pressure | Specifications

Flow Capacities

Model	Pressure psi (bar)	rpm	gpm	l/min	BPD
T100S	5000 (345)	450	26	98	891

Delivery

	Pressure psi (bar)	gal/rev	liters/rev
T100S	500 (34)	0.066	0.249
	2500 (172)	0.063	0.237
	5000 (345)	0.059	0.222

rpm

Maximum: 450
Minimum: 45
Consult factory for speeds less than 45 rpm.

Maximum Discharge Pressure

Metallic Heads: 5000 psi (345 bar)

Maximum Inlet Pressure 500 psi (34 bar)

Operating Temperature

Maximum: 180˚F (82.2˚C)
Minimum: 40˚F (4.4˚C)
Consult factory for temperatures outside this range.

Maximum Solids Size 800 microns

Input Shaft Left or Right Side

Inlet Ports 2 inch Class 300 FF ANSI Flange

Discharge Ports 1-1/4 inch Class 2500 RTJ ANSI Flange

Plunger Stroke Length 3-1/2 inch (88.9 mm)

Shaft Diameter 3 inch (76.2 mm)

Shaft Rotation Uni-directional (See rotation arrow.)

Oil Capacity 18 US quarts (17 liters) - blank back cover
20.5 US quarts (19.4 liters) - oil level back cover
See page 5 for oil selection and specification.

Pump Weight 1100 lbs. (499 kg)

Fluid End Materials

Manifold:	Nickel Aluminum Bronze (NAB) 316L Stainless Steel
Diaphragm/Elastomers:	FKM Buna-N Aflas EPDM
Diaphragm Follower Screw:	316 Stainless Steel Duplex Alloy 2205 Stainless Steel Hastelloy C
Valve Spring Retainer:	PVDF Polypropylene 316 SST Hastelloy C
Check Valve Spring:	Elgiloy Hastelloy C
Valve Disc/Seat:	Tungsten Carbide 17-4 Stainless Steel Nitronic 50 Hastelloy C
Plug-Outlet Valve Port:	316 Stainless Steel Duplex Alloy 2205 Stainless Steel Hastelloy C
Inlet/Outlet Valve Retainer:	316 Stainless Steel Duplex Alloy 2205 Stainless Steel Hastelloy C

Power End Materials

Crankshaft:	Forged Q&T Alloy Steel
Connecting Rods:	Ductile Iron
Crossheads:	12L14 Steel
Crankcase:	Ductile Iron
Bearings:	Spherical Roller (main bearing) Steel Backed Babbit (crankpin) Bronze (wristpin)

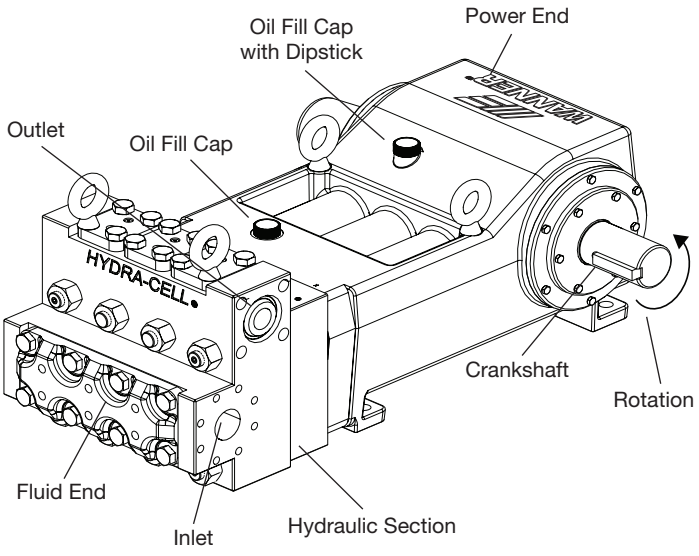
Calculating Required Horsepower (kW)*

$$\frac{\text{gpm x psi}}{1{,}460} = \text{electric motor hp*}$$

$$\frac{\text{lpm x bar}}{511} = \text{electric motor kW*}$$

** hp (kW) is required application power.*

Attention!
When sizing motors with variable frequency drives (VFD): It is very important to select a motor and a VFD rated for constant torque inverter duty service and that the motor is rated to meet the torque requirements of the pump throughout desired speed range.



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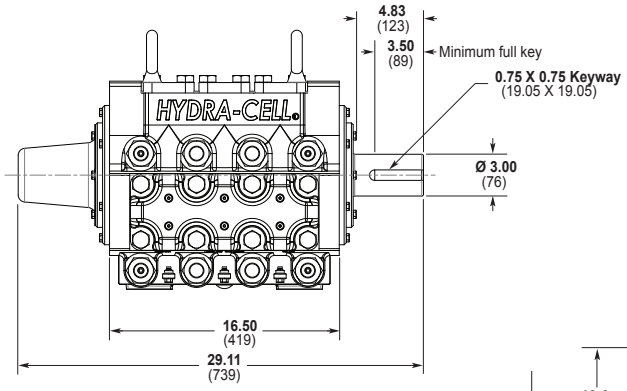
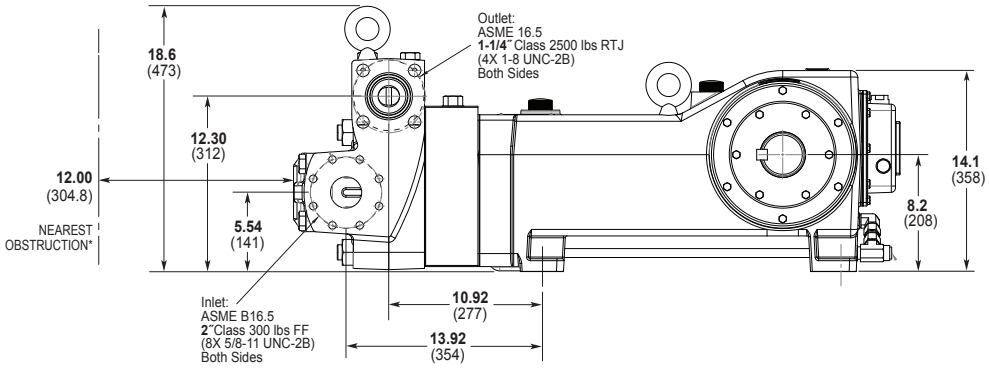
T100 Pro High Pressure | Drawings

Threaded Version inches (mm)

Front View

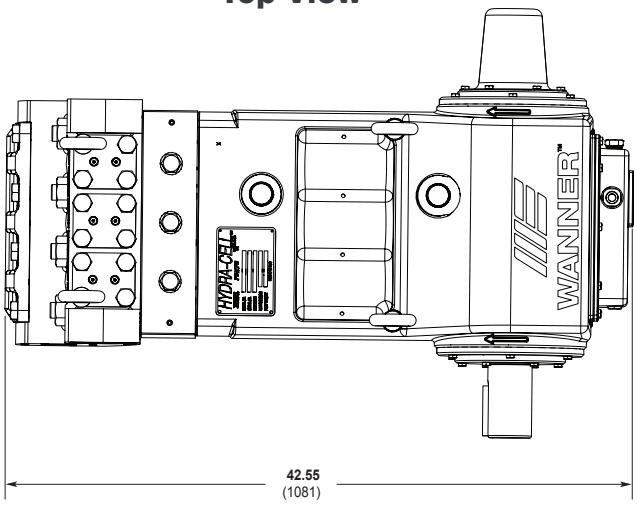


Side View

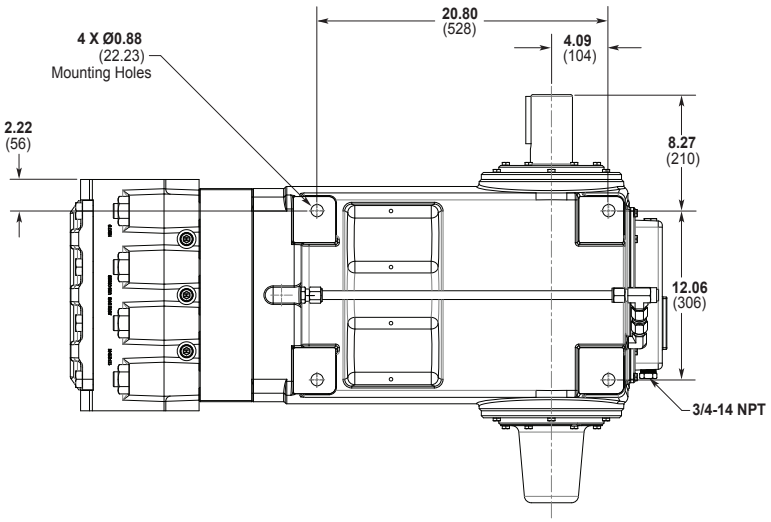


*Contact factory for obstruction distances closer than 12 inches (304.8 mm).

Top View



Bottom View



Note: Dimensions are for reference only. Contact factory for certified drawings.

T100 Pro High Pressure | How to Order

Ordering Information

A complete T100 Pro Series High Pressure Model Number contains 14 digits including 8 customer-specified design and materials options, for example: T100SRDTHFEPAC.

1	2	3	4	5	6	7	8	9	10	11	12	13	14
T	1	0	0	S	R								

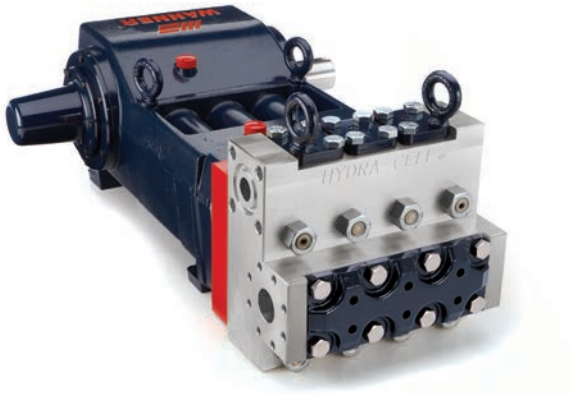
High Pressure

Digit	Order Code	Description
1-4		**Pump Configuration**
	T100	Shaft-driven
5		**Performance**
	S	Max. 26 gpm (98 l/min) 891 BPD @ 5000 psi (345 bar)
6		**Pump Head Version**
	R	ANSI Flanged Ports (RF on Inlet / RTJ on Discharge)
7		**Pump Head Material**
	D	Nickel Aluminum Bronze (NAB)
	S	316L Stainless Steel
8		**Diaphragm & O-ring Material**
	A	Aflas
	E	EPDM (requires EPDM-compatible oil - Digit 13 oil code D)
	G	FKM
	T	Buna-N
9		**Valve Seat Material**
	D	Tungsten Carbide*
	H	17-4 Stainless Steel
	N	Nitronic 50
	T	Hastelloy C
10		**Valve Material**
	D	Tungsten Carbide*
	F	17-4 Stainless Steel
	N	Nitronic 50
	T	Hastelloy C
11		**Valve Springs**
	D	Elgiloy for Tungsten Carbide valves*
	E	Elgiloy
	T	Hastelloy C

* Tungsten Carbide valve seat and disc are a matched set and must be purchased together along with appropriate valve springs.

Digit	Order Code	Description
12		**Valve Spring Retainers**
	M	PVDF
	P	Polypropylyene
	S	316 SST
	T	Hastelloy C
13		**Hydra-Oil**
	A	10W30 standard-duty oil
	B	40-wt. oil
	D	EPDM-compatible oil
	H	15W50 high-temp severe-duty synthetic oil
	M	Food-contact oil
14		**Oil Level Monitor Cover**
	C	Float switch, normally closed (recommended)
	O	Float switch, normally open
	S	Float switch, Class I, Div. 1, Groups A, B, C, D, normally closed
	T	Float switch, Class I, Div. 1, Groups A, B, C, D, normally open
	W	Float switch, ATEX/IECEx, 4-20 mA analog output (qualification required)
	X	Float switch, ATEX/IECEx, discrete output (qualification required)
	Y	No switch, flat back cover

Note: The Oil Level Monitor Cover is an assembly that replaces the previous back cover on T100 Series pumps. It contains a float switch assembly that can trigger an alarm or shutdown when pre-defined levels of high or low oil are reached. It may also be ordered without a float switch cover.



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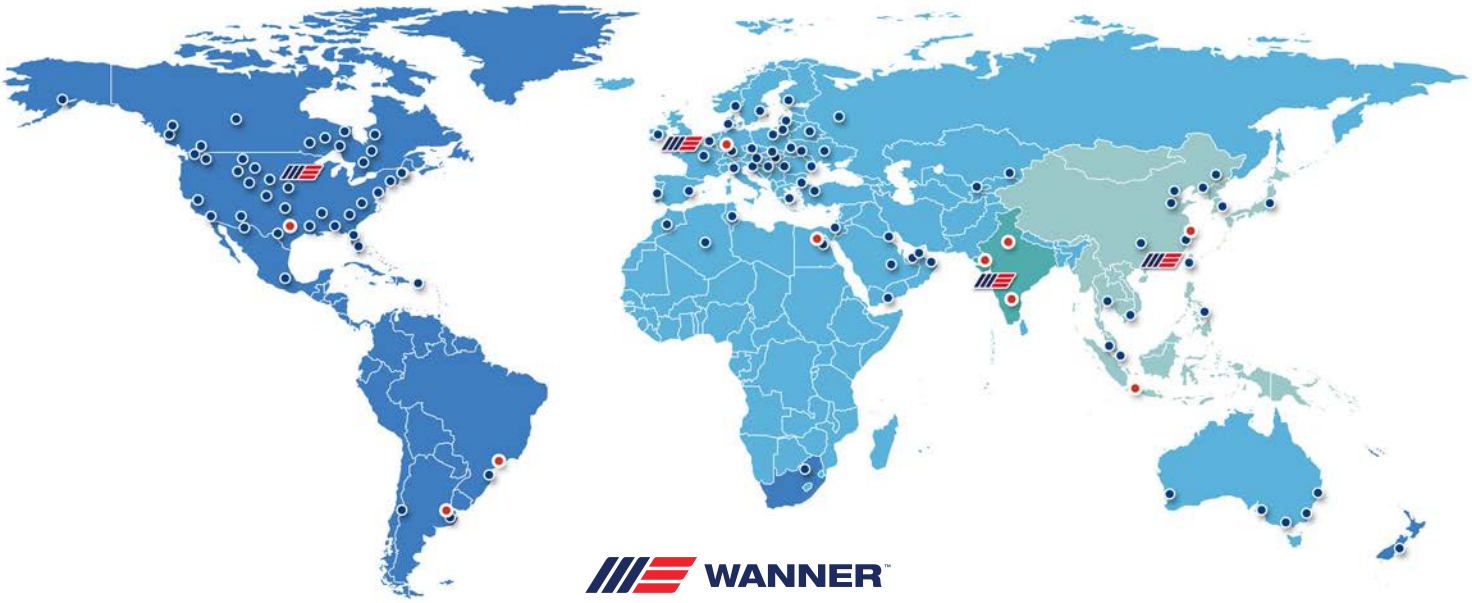
Partners in over 70 countries



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