

NEW
PRODUCTS & FEATURES

WELCH | Formerly ILMVAC
by Gardner Denver

CRVpro

Your Robust Vacuum Pump



CRVpro 4,6,8

CRVpro 2

CRVpro 24

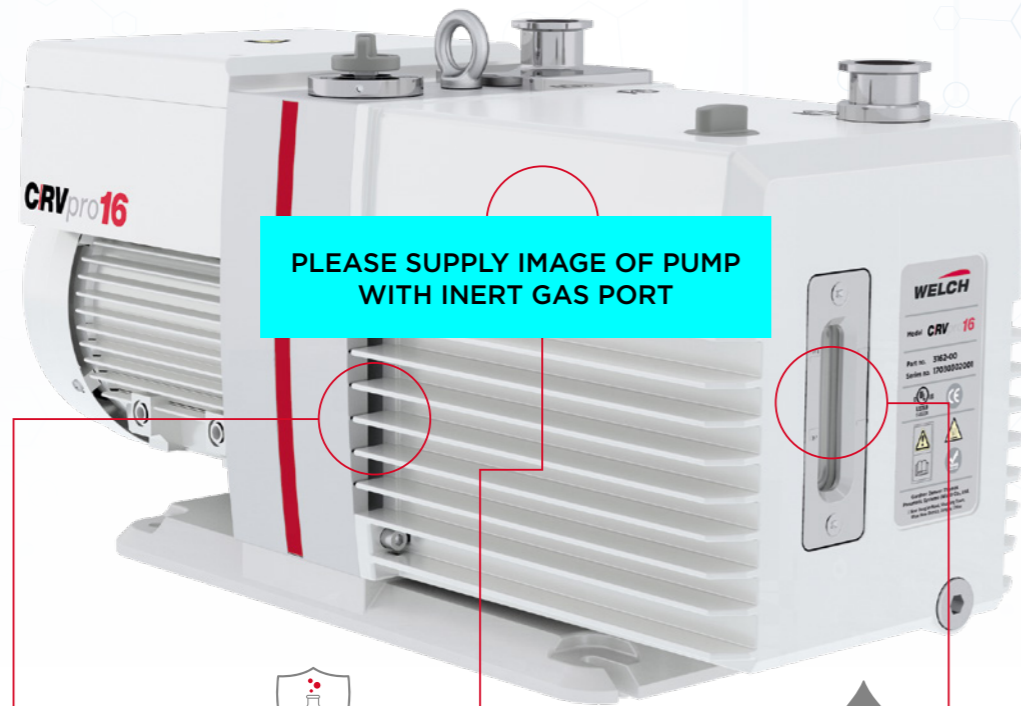
CRVpro 16,24,30

CRVpro 2

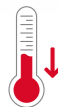
CRVpro

Your Robust Vacuum Pump

Discover the evolution of two-stage rotary vane vacuum pumps. Built to last. Born to perform. And designed to simplify your work. Meet the robust vacuum pump series - CRVpro.



PLEASE SUPPLY IMAGE OF PUMP WITH INERT GAS PORT



COOL RUNNING

Enhanced air flow allows the pump to run 10°C cooler than standard rotary vane pumps. The lower temperature leads to reduced chemical activity within the pump and slows down rates of oil consumption.



INTERNAL SURFACE PROTECTION

Inside surface of the oil case has a PTFE coating and the outer surface of the pumping module has a black oxide coating. Both coatings act to slow metal corrosion and, when coupled with foreline traps, extend service interval.



LARGE OIL CAPACITY

Chemical vapors that sublime from the foreline cold trap into the pump oil are more diluted due to the larger oil capacity. This minimizes the rates of oil breakdown and reduce chemical attacks within the pump.

HIGHEST RELIABILITY

LONG PRODUCT LIFESPAN

LESS MAINTENANCE

EXTENDS SERVICE INTERVAL

YOUR BENEFITS

Highest reliability for stable operation and long product lifespan

- ✓ Reduced risk of chemical attacks and oil breakdown by diluting chemical vapors with a larger oil chamber
- ✓ Slowing down corrosion by cool running operation
- ✓ Provides a measure of protection from sublimed chemical vapors with coating on pump module and oil case

Extended oil change intervals for less maintenance costs

- ✓ Less oil consumption by cool running operation
- ✓ Extended usability of oil due to high dilution effect by a larger oil chamber



1 LOW NOISE LEVEL

Exceptionally quiet for undisturbed work.

2 FORCED OIL LUBRICATION

Ensures moving parts are bathed in fresh oil. Equilibrates temperature, minimizes oil breakdown, and prolongs mechanical life.

3 ANTI-SUCK BACK VALVE

Prevents oil from being sucked into application in the event of a power failure.

4 GAS BALLAST WITH INERT GAS OPTION

Minimizes entrained chemicals in pump oil. Protects pump from condensable liquids from application such as water, acetyl nitrile, etc.

5 cUL AND CE CERTIFICATION

Compliance with local regulations and safety directives for safety operation.

6 SIZED TO FIT YOUR APPLICATION

Modern and compact design to fit different applications and performance requirements.

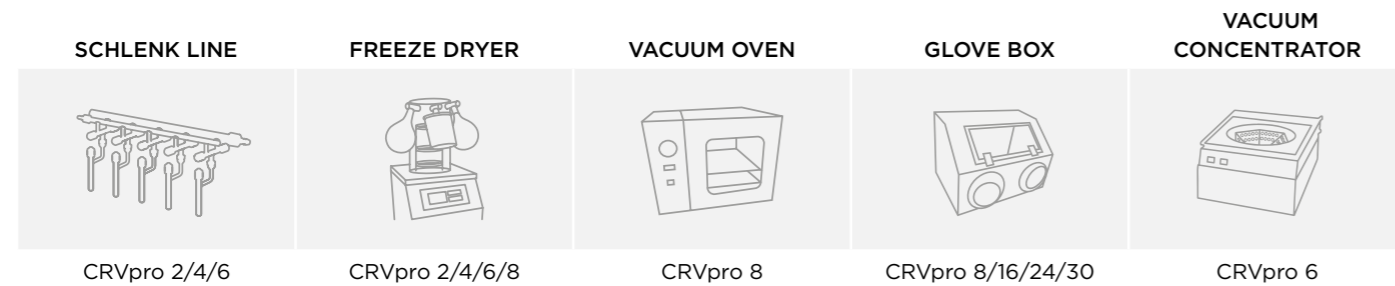
7 DUAL VOLTAGE MOTOR

Dual voltage motors meet IP54 standard. Motors of CRVpro 2,4,6,8 are switchable from 115V to 240V for global use excluding 100V and 200V pump versions. Each pump includes power cord suitable for country use.

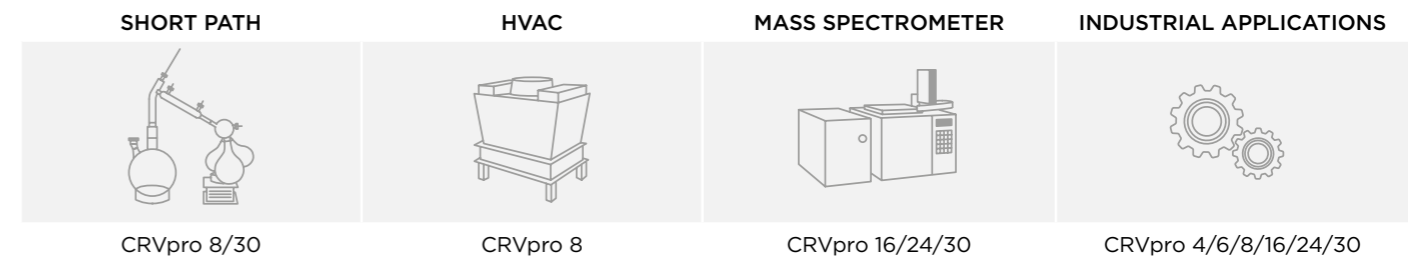
8 LABYRINTH EXHAUST BAFFLING SYSTEM

To reduce oil mist emission and dampen noise level (excluding CRVpro2).

APPLICATIONS



CRVpro 2/4/6 CRVpro 2/4/6/8 CRVpro 8 CRVpro 8/16/24/30 CRVpro 6



CRVpro 8/30 CRVpro 8 CRVpro 16/24/30 CRVpro 4/6/8/16/24/30

TECHNICAL DATA

PARAMETER	UNIT	CRVpro 2	CRVpro 4	CRVpro 6	CRVpro 8	CRVpro 16	CRVpro 24	CRVpro 30
Free air displacement								
- @ 50 Hz	m ³ /h (l/min)	2.5 (42)	4 (67)	6 (100)	8 (133)	18.3 (305)	26.2 (436)	33.1 (551)
- @ 60 Hz	CFM (l/min)	1.8 (50)	2.8 (78)	4.2 (118)	5.6 (158)	12.8 (363)	18.3 (519)	22.1 (627)
Pumping speed								
- @ 50 Hz	m ³ /h (l/min)	2.3 (38)	3.8 (63)	5.1 (52)	7.3 (122)	16.8 (2280)	24 (400)	29 (483)
- @ 60 Hz	CFM (l/min)	1.6 (47)	2.7 (77)	3.7 (105)	5.1 (143)	11.9 (336)	17 (480)	20.5 (580)
Ultimate pressure								
- Without gas ballast partial	mbar (Torr)	3x10 ⁻⁴ (2x10 ⁻⁴)	5x10 ⁻⁴ (4x10 ⁻⁴)			3x10 ⁻⁴ (2x10 ⁻⁴)		
- Without gas ballast total	mbar (Torr)	3x10 ⁻³ (2x10 ⁻³)	2x10 ⁻³ (1.5x10 ⁻³)			3x10 ⁻³ (2x10 ⁻³)		
- With gas ballast total	mbar (Torr)	9x10 ⁻² (7x10 ⁻²)	7x10 ⁻² (5x10 ⁻²)			6x10 ⁻³ (5x10 ⁻³)		
Connection flanges	DN	16 KF			25 KF			
Ambient temperature	°C	10-40						
Noise level (50 Hz)	dB (A)	≤50			≤55			
Oil capacity	ml	450	1150	1000	2400	2200	2100	
Motor speed	rpm 50/60 Hz	1440/1720		1450/1740		1450/1750		
Motor power	kW 50/60 Hz	0.29/0.3		0.37/0.4		0.7/0.85		
Weight	kg	15	21	22	22.5	37	38.5	39.5
Dimensions L x W x H	mm	384/138/211*		463/157/230*			569/206/289	

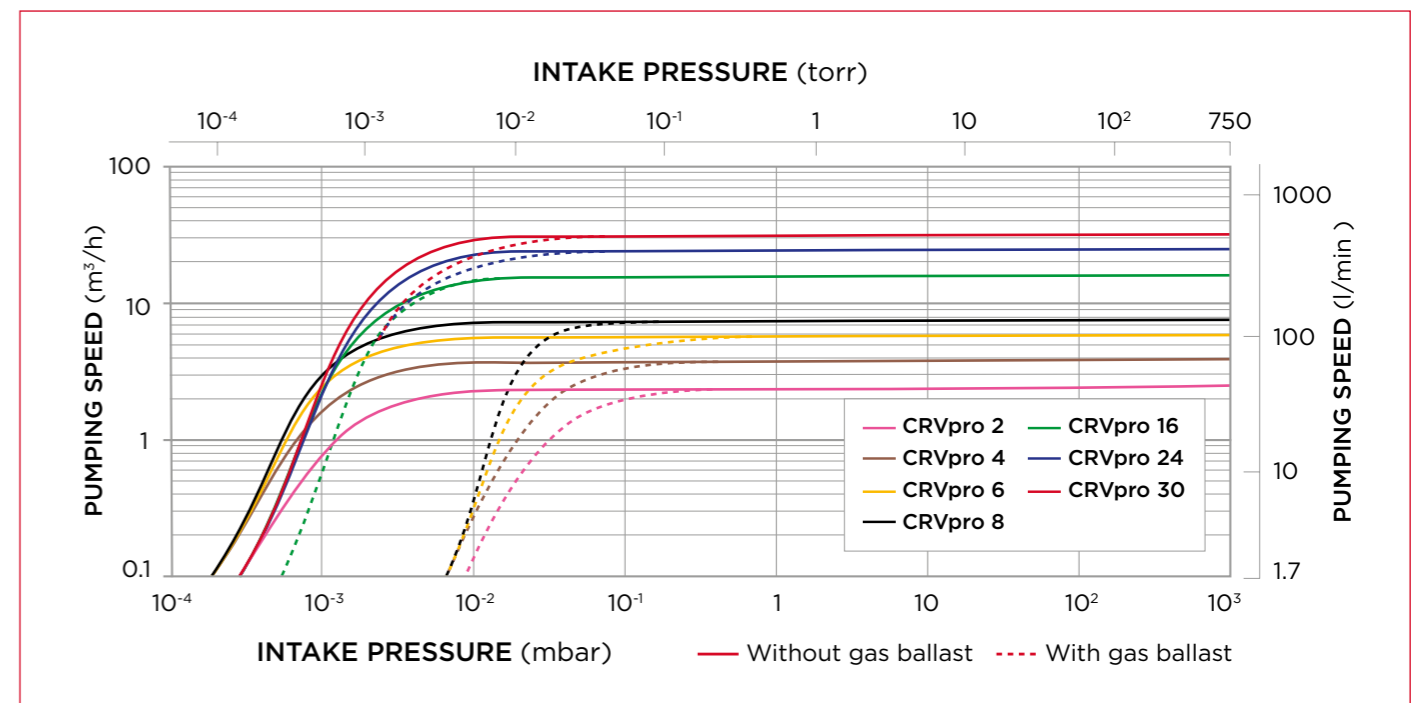
* Without handle.

ORDERING INFORMATION

DESCRIPTION	CRVpro 2	CRVpro 4	CRVpro 6	CRVpro 8	CRVpro 16	CRVpro 24	CRVpro 30
220-240 V / 50 Hz; 230 V / 60 Hz, 115 V / 60 Hz, 1 phase motor with line cord EU-plug (CEE 7/4), line cord UK-plug (BS1363), line cord US-plug (NEMA 6-15)**	3022-00	3042-00	3062-00	3082-00	-	-	-
220-240 V / 50 Hz; 230 V / 60 Hz, 1 phase motor with line cord EU-plug (CEE 7/4), line cord UK-plug (BS1363)	-	-	-	-	3162-00	3242-00	3302-00
115 V / 60 Hz, 1 phase motor with line cord US-plug (NEMA 5-15)	-	-	-	-	3161-00	3241-00	3301-00
Service kit	S3346-99	S3077-99	S3078-99	S3079-99	S3193-99	S3194-99	S3195-99
Seal kit	S3344-99	S3080-99			S3192-99		

Every pump is supplied complete with Directorr™ Premium vacuum pump oil, centering rings, clamping rings and motor overload protection. Ready for use after oil filling. Motor versions (e.g. 3-phase) upon request.

PERFORMANCE



NEW

NEW CRVpro GAS BALLAST SYSTEM

It's important to use the gas ballast function when pumping condensable vapours to ensure that they don't condense inside of the pump and cause oil degradation.

As well as having a standard gas ballast valve for operation with atmospheric air, CRVpro now comes with the option to use dry inert gas for more efficient gas ballast performance. Use adapter kit to facilitate inert gas connection.

DESCRIPTION	ORDER NO.
Inert gas ballast connection kit	S3256-99

Port enables use of dry inert gas for gas ballast

** CRVpro 2,4,6,8 are switch selectable between 220-240 V / 50 Hz; 230 V / 60 Hz and 115 V / 60 Hz operation. CRVpro 16, 24, 30 models are not switch selectable.

COMPLETE PUMP PACKAGES

PLEASE SUPPLY IMAGE



PLEASE SUPPLY IMAGE

330070

330074

330080

PACKAGE	DESCRIPTION	CRVpro 2	CRVpro 4	CRVpro 6	CRVpro 8
CRVpro starter package	CRVpro with oil mist separator AKD 16, 2-way ball valve, hose connector DN 16KF-10/8 mm, vacuum hose (1,5 m), oil change set	330070	330071	330072	330073
CRVpro premium package	CRVpro with digital vacuum gauge PIZA 111 cr-gold, oil mist separator AKD 16, 2-way ball valve, T-piece, hose connector DN16KF-10/8 mm, vacuum hose (2,5 m), oil change set	330077	330074	330075	-
CRVpro cold trap package	CRVpro with oil mist separator AKD 16, oil change set, 2-way ball valve, KFG16 glass cold trap, adapters and connecting parts	-	330080	-	-



700621

NEW WELCH FOM PROFESSIONAL OIL MIST FILTER WITH OIL DRAINBACK

NEW

- Coalesced oil drains back into pump oil case to reduce oil consumption and enables a clean work space
- Exhaust can be directed into existing fume hood
- Reduces pump noise
- Filters to 0.3 micron particle size

PREMIUM VACUUM PUMP OIL



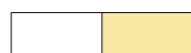
800995-01

800995-05

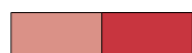
A triple-distilled hydrocarbon oil using severely hydrotreated base stock is designed to resist breakdown at higher RPMs and operating temperatures of direct-drive vacuum pumps. Premium oil enables direct-drive vacuum pumps to maintain the highest vacuum performance over time.

- Low vapor pressure
- Designated for high RPM direct drive vacuum pumps
- No additives or inhibitors to react with user chemistry
- Recommended for Welch direct-drive vacuum pumps

PUMP OIL CONDITION COLOUR



Good Oil



Bad Oil (Possible Pump Damage)

ORDERING INFORMATION

Size	1 litre	5 litres	20 litres
Order No.	800995-01	800995-05	800995-20

ACCESSORIES

INLET AND OUTLET ACCESSORIES



320016 (INLET)

CHANGE PHOTO TO 705130

705130 (INLET)

NEW

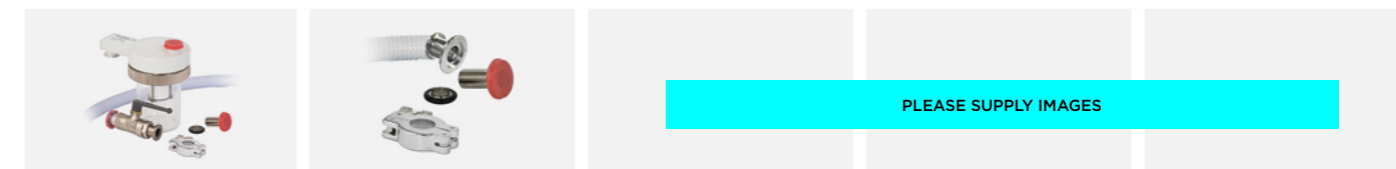
700621 (OUTLET)

320015 (OUTLET)

700010 (OUTLET)

DESCRIPTION	ORDER NO.	
INLET	CRVpro 2, 4, 6, 8	CRVpro 16, 24, 30
AKS inlet separator	(AKS16) 320016	(AKS25) 320018
KFG16 glass cold trap	705130	-
OUTLET	CRVpro 2, 4, 6, 8	CRVpro 16, 24, 30
FOM professional oil mist filter with oil drainback	(FOM16) 700621	(FOM25) 700622
AKD oil mist separator	(AKD16) 320015	-
OME economical oil mist filter	(OME10/16) 700010	-

APPLICATION KITS



330031

330044

330051

330053

330055

DESCRIPTION	ORDER NO.	
Freeze Dryer Adapter kit, with oil mist separator AKD, 2-way ball valve, 1.5m PVC vacuum hose, hose nozzle connectors, adapters, clamps and centring rings	CRVpro 2, 4, 6, 8	CRVpro 16, 24, 30
(DN16) 330031	(DN25) 330032	
Vacuum Concentrator Adapter kit, with 1.5m PVC vacuum hose, hose nozzle connectors, adapters, clamps and centring rings	(DN16) 330044	(DN25) 330045
Vacuum Measurement kit, with digital vacuum gauge PIZA 111 cr-gold, stand for gauge, T-piece, clamps and centring rings	(DN16) 330051	(DN25) 330052
Vacuum Control kit, with digital vacuum gauge MRV 100 & PIZA 111 cr-gold sensor, T-piece, solenoid control valve, clamps and centring rings	(DN16) 330053	(DN25) 330054
Vacuum Pump Protection kit, with inlet separator AKS, KFG16 glass cold trap, 500mm flexible Stainless Steel hose, clamps and centring rings	(DN16) 330055	(DN25) 330056

HOSE AND CONNECTIONS



701011

701151

710755

701401

710213

PLEASE SUPPLY IMAGE

DESCRIPTION	ORDER NO.	
KF Clamping ring	CRVpro 2, 4, 6, 8	CRVpro 16, 24, 30
(DN16) 701011	(DN25) 701013	
KF External centring ring, Aluminium with FKM o-ring	(DN16) 701151	(DN25) 701153
KF Stainless steel flexible hose, 1.5m	(DN16) 710755	(DN25) 710756
KF Reducing adapter DN25/16, for inlet/exhaust	701401	-
Schlenkline adapter NS14/23 - DN16KF	710213	-



WolfLabs

Pricing on any accessories shown can be found by keying the part number into the search box on our website.

The specifications listed in this brochure are subject to change by the manufacturer and therefore cannot be guaranteed to be correct. If there are aspects of the specification that must be guaranteed, please provide these to our sales team so that details can be confirmed.

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Please contact us if this literature doesn't answer all your questions.