



Condensate Management Solutions

Protect the Environment

and your Investments

The compressed air that comes out of a compressor is generally too humid, contaminated and sometimes too hot to be introduced directly into the distribution network without suitable treatment.

The various processes which the compressed air thus undergoes generate condensate, which has to be discharged from the network and suitably treated before being released into the environment.

The Parker Hiross range of solutions for condensate treatment includes:

- **Hyperdrain condensate drains:**
 - electronic with zero air loss: **HDE-X**
 - mechanical with zero air loss, also suitable for high pressure applications: **HDF**
 - timed: **CDV** and **HTD**
 - built-in with zero air loss: **HDI**
- **Hypersplit water/oil separators**

Caring for the environment:

As a company with ISO 14001 certification, Parker Hiross puts care for the environment at the centre of its design choices and production processes. Parker Hiross condensate treatment solutions deliver:

- **Maximum protection for the environment**, thanks to the use of a water/oil separator, which comprehensively separates contaminants from the water, thus allowing the latter to be released directly into the environment without any risk of pollution;
- Zero losses of compressed air for **maximum energy saving** thanks to the use of zero loss condensate drains.






A safe investment:

Designed for industrial applications, Parker Hiross solutions for condensate treatment offer:

- **Maximum adaptability** to the most wide-ranging conditions
- **High wear resistance**
- **Simplicity** of use and installation
- **Low maintenance** and consequent time savings
- **Rapid return on investment** thanks to the possibility of draining 99% of condensate directly into the environment as clean water.

Free your Energy

with the Parker Hiross solutions

Condensate drains		Hyperdrain HDE-X zero loss electronic drains
		Hyperdrain HDF zero loss mechanical drains even for high pressures
		Hyperdrain CDV and HTD timed drains
		Hyperdrain HDI zero loss integrated drain
Separators		Hypersplit oil/water separators

Zero loss electronic drains

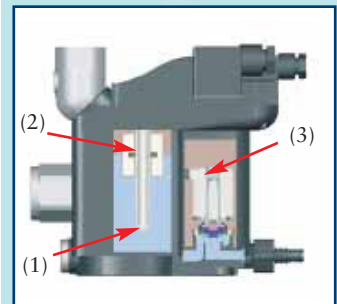
Hyperdrain: HDE-X



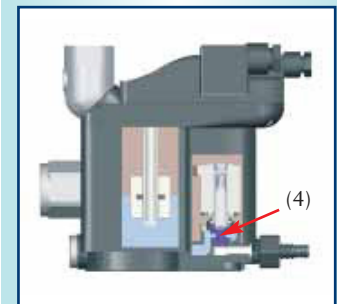
Features:

- **Magnetic core level control:** guarantees zero compressed air losses and the reliability of operation thanks to the electronic control.
- **Separate opening and closing sensors (HDE30X-50X):** fewer working cycles and increased reliability.
- **Integral dirt screen** against impurities: contaminants which could damage the diaphragm valve are trapped and an alarm activated when the filter is blocked.
- **Works with all condensates** (including impurities and oil).
- **No contact between the electrical parts and the condensate.**

Operation



The condensate accumulates in the drain bowl (1), forcing the magnetic core level control (2) to rise. When the level reaches the upper sensor, the valve (3) is opened.



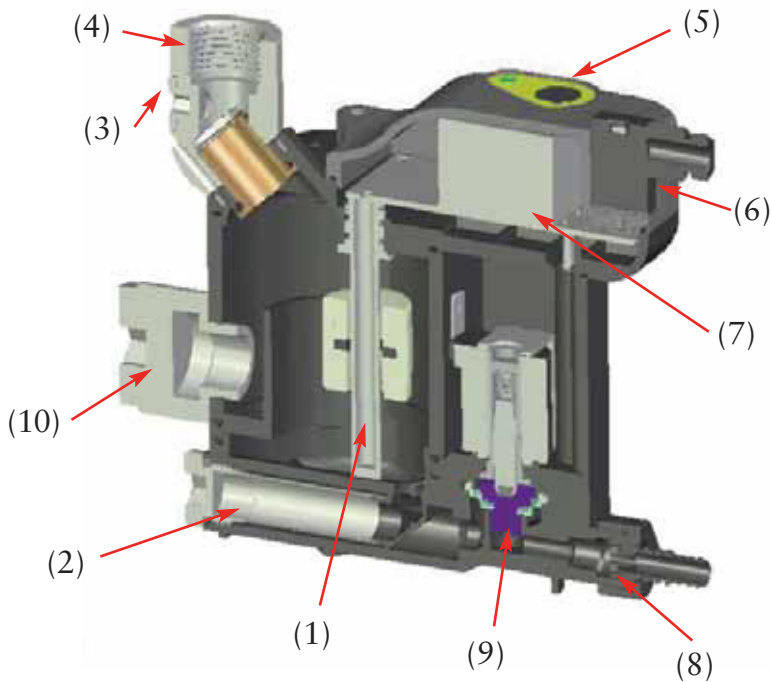
As the condensate flows out of the diaphragm valve (4), so both the water level in the drain and the level control drop. When the level control reaches the lower sensor, the valve is closed, ensuring no air is allowed to escape.

The range Hyperdrain HDE-X 10-50

5 models for air flows after the refrigeration dryer up to 200 m³/min.

Free your Energy

Zero loss electronic drains



- 1) Magnetic core level control
- 2) Integral dirt screen
- 3) Balance line inlet
- 4) Condensate inlet
- 5) Alarm lamp
- 6) Volt free alarm contact
- 7) Electrical connector
- 8) Outlet flow regulator
- 9) Diaphragm valve
- 10) Bottom condensate inlet (from HDE30X)

All the benefits, in three steps:

Installation

- Condensate inlet (4) rotates for easy top or rear inlet connection (from HDE20X).
- No programming or calibration required.
- Balance line inlet (3, from HDE20X) for installation ease even in complex situations.

Maintenance

- Easy drain access and easily removable electrical connector (7) simplify maintenance.

Use

- Large cross section diaphragm valve (9) with pilot control improves reliability.
- Alarm lamp (5) warns the user if the condensate cannot be discharged, protecting the system from contamination.
- Standard volt-free alarm contact (6, HDE30X-50X) allows remote monitoring.
- Special outlet flow regulator (8) to throttle condensate flow, ensures no emulsion is created and supports the oil/water separator installation.

The Parker Hiross solutions

Zero loss mechanical drains

Hyperdrain: HDF



HDF is the result of a long and constant technological evolution, and combines the advantages of zero loss operation with extreme ease of installation.

Features:

- **Hiroshield protection:** even works with dirty, oily condensates. High wearing, long operating life in even the most severe conditions.
- **Patented valve mechanism:** finely calibrated design, long term reliability.

All the benefits, in three steps:

Installation

- No need for electrical wiring, as power supply is not required.
- No programming or calibration required, HDF is ready to use.
- Also available with an internal vent line.

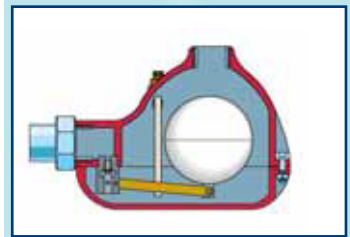
Maintenance

- Manual drain valve for system discharge and operational check fitted as standard.

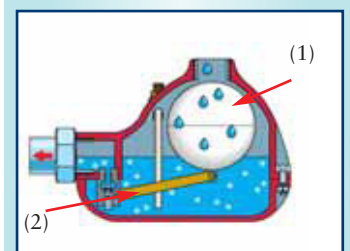
Use

- Large cross section outlet valve opening minimizes the chance of blockages for improved reliability.
- Low velocity condensate outlet ensures that no emulsion is created and supports installation of a static oil/water separator.

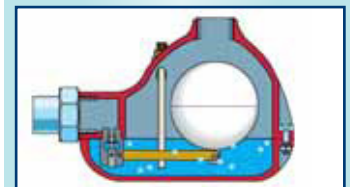
Operation



With no water in the drain the valve is closed - no air loss.



The rising water level forces the float (1) to rise and open the valve (2). The water is allowed to exit without any air loss.



As the water exits the float drops. The valve re-closes before any air can escape.

Hyperdrain: HDF510



High pressure version featuring a robust housing completely coated with a choice of 3 materials for aggressive condensates:

- carbon steel,
- stainless steel & brass
- stainless steel

The range

Hyperdrain HDF

3 models for air flows after the refrigeration dryer up to 500 m³/min.

3 HDF510 models for high pressures up to 51 barg.

Free your Energy

Timed drains

Hyperdrain: CDV & HTD

Timed condensate drains owe their success chiefly to their ability to guarantee reliable operation over many years, even in the most demanding conditions, with a compact, packaged design. CDV and HTD are associated with different flow rate ranges, but both offer an intuitive user interface combined with robust construction featuring a stainless steel and brass valve.

The various models of timed condensate drains are characterised by high quality, proven by extensive field testing, which has demonstrated the reliability



CDV

Operation

The CDV and HTD timed drains automatically discharge the condensate following the set cycles:

- drain opening time set
- interval between each drain opening set.

of the electrical and control systems. The condensate drains are available in versions for operation at up to 50 barg (CDV) and belong to protection class IP65 for outdoor installation.



HTD

All the benefits, in three steps:

Installation

- Compact dimensions and different voltages available.

Maintenance

- Stainless steel strainer as standard, protects drain from impurities.
- Standard manual drain valve.

Use

- Large condensate inlet & outlet ports prevent blockages.
- Forced drainage patterns ensures reliability, even in the presence of impurities.

The range Hyperdrain CDV & HTD

4 CDV models and 2 HTD models for air flows after the refrigeration dryer and filter up to 3 m³/min.

Manual drains

Hyperdrain: HDI



Manual drain valve with an extremely compact design for installation in air filters. No power supply required. Large drainage surface with integral screen filter.

The Parker Hiross solutions

Oil/water separators

Hypersplit



Features:

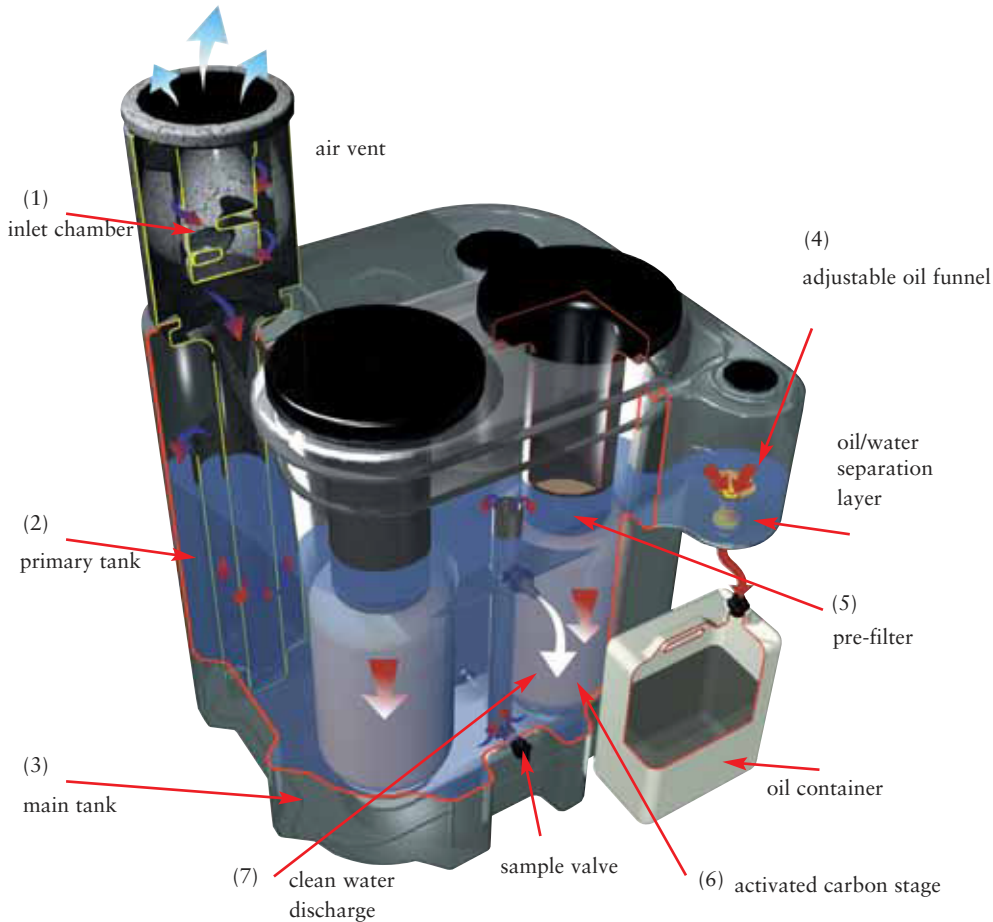
- Reliable, efficient and maintenance-friendly, Hypersplit guarantees rapid payback and up to 99,9% of condensate safely discharged as clean water.
- Twin tank models (OWS185; OWS485) feature patented parallel flow design, ensuring longer active carbon life as well as significantly improved performance.
- OWS125-485 with 4 inlet ports allow connection of up to 4 condensate lines onto one Hypersplit.
- Single moulded construction for minimum weight and compact dimensions. Polyethylene throughout construction prevents corrosion and leakages.
- Inlet chamber, primary tank and main tank generously dimensioned, improving separation and reducing the risk of blockages.

Accessories:

- **Multibanking solution:** for large installations, allowing up to 5 Hypersplit installations in parallel.
- **Additional oil containers:** simplify maintenance.
- **Pre-filter:** protects the carbon stage from bulk contamination, whilst the carbon stage itself has been sized to ensure that the outlet water is free of any traces of oil.

Free your Energy

Oil/water separators



Operation

- 1) Condensate enters inlet chamber, where it expands.
- 2) Liquid separates by centrifugal motion and drains into primary tank, at the bottom of which any dirt settles.
- 3) Condensate flows into main tank. With time, oil and water separate; oil settles at the surface of the main tank, coalescing to form a thick layer.
- 4) Oil removed by adjustable funnel; collected in external oil container.
- 5) Water passes through pre-filter(s) for bulk contamination removal.
- 6) Water passes through carbon filter(s) for removal of any oil traces.
- 7) Clean water discharge (up to 99% of the system's condensate).

Preventive maintenance, easy and secure

ISO 14001 compliance guaranteed by following the Parker Hiross Hypersplit preventive maintenance schedule:

- a) Active carbon filter substitution at least once every 6 months.
- b) Monthly condensate tests are taken, simple with Hypersplit Performance Sampling valve. When oil content levels approach ISO 14001 limits, active carbon filters are to be substituted.

Maintenance friendly

- The separated oil, stored in an external container, can be easily and quickly removed.
- Active carbon stage, designed for easy substitution with the Parker Hiross active replacement kit.
- Oil separation optimized using the adjustable funnel in the main tank.
- Performance sampling valve for rapid verification of the water cleanliness.
- Easily accessible primary tank for cleaning.

The range Hypersplit OWS001-485

7 models, which can operate with air flows from 0,7 to 60 m³/min, according to oil type and temperature conditions.

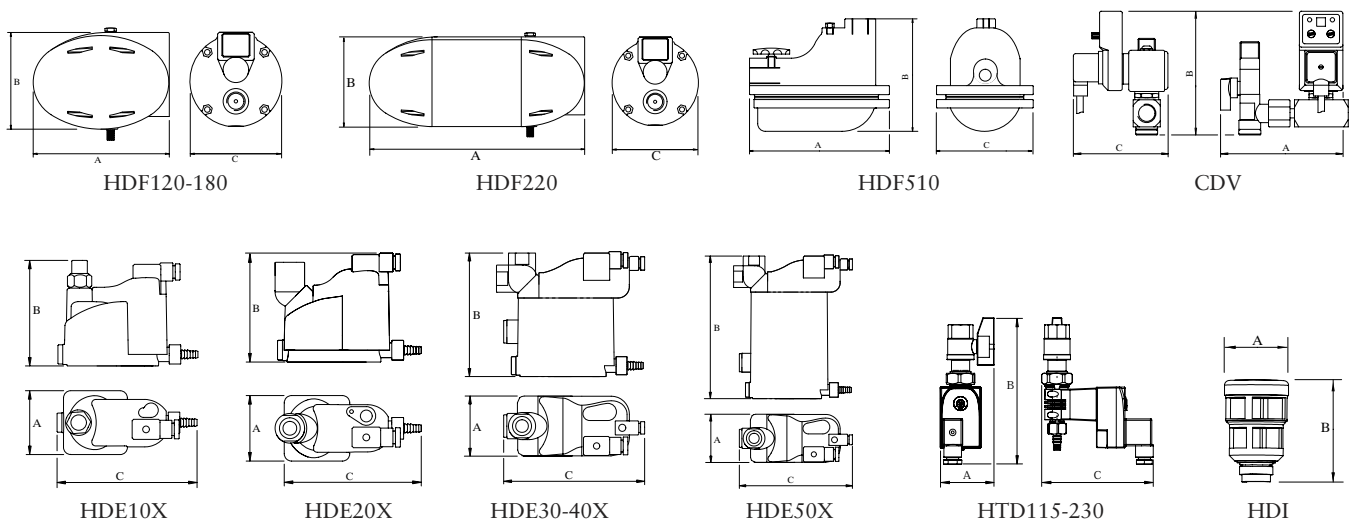
The Parker Hiross solutions

Condensate drains

Hyperdrain

Model	refrigerant		air flow dryer		filter		connections		max press. barg	power supply V/ph/Hz	dimensions (mm)			weight kg
	m ³ /min	m ³ /h	m ³ /min	m ³ /h	m ³ /min	m ³ /h	IN	OUT			A	B	C	
Zero loss electronic drains														
HDE10X	-	-	-	-	12	720	1xG1/2"	G3/8"	16	115-230/1/50-60	67	110	146	0,5
HDE20X	4	240	8	480	24	1440	1xG1/2"	G3/8"	16	115-230/1/50-60	67	101	139	0,6
HDE30X	7	420	14	840	42	2520	2xG1/2"	G3/8"	16	115-230/1/50-60	67	122	164	1,0
HDE40X	30	1800	60	3600	180	10800	2xG1/2"	G3/8"	16	115-230/1/50-60	67	137	164	1,1
HDE50X	100	6000	200	12000	600	36000	2xG1/2"	G3/8"	16	115-230/1/50-60	67	197	164	1,5
Zero loss mechanical drains														
HDF120	90	5400	180	10800	540	32400	1/2"	1/2"	16	-	156	111	108	0,9
HDF180	100	6000	200	12000	600	36000	1"	1"	16	-	156	111	108	0,9
HDF220	250	15000	500	30000	1500	90000	1"	1"	16	-	266	111	108	0,9
Zero loss special mechanical drains														
HDF510	100	6000	200	12000	600	36000	1"	1"	51	-	233	186	158	1,1
HDF510S	100	6000	200	12000	600	36000	1"	1"	51	-	233	186	158	1,1
HDF510C	100	6000	200	12000	600	36000	1"	1"	51	-	233	186	158	1,1
Zero loss internal drains														
HDI	-	-	-	-	0,5-0,7	30-42	1/2"	1/2"	16	-	40	62	-	0,03
Timed drains														
CDV/24	150	9000	300	18000	900	5400	1/2"	3/8"	16	24/1/50-60	90	110	90	0,7
CDV/115	150	9000	300	18000	900	5400	1/2"	3/8"	16	115/1/50-60	90	110	90	0,7
CDV/230	150	9000	300	18000	900	5400	1/2"	3/8"	16	230/1/50-60	90	110	90	0,7
CDV/50barg	150	9000	300	18000	900	5400	1/2"	3/8"	50	230/1/50-60	90	110	90	0,7
HTD115	-	-	6	360	-	-	8mm hose		16	115/1/50	43	90	95	0,18
HTD230	-	-	6	360	-	-	8mm hose		16	230/1/50	43	90	95	0,18

Performances refer to 35°C compressed air temperature, 25°C ambient temperature, 65% R.H., 3°C pressure dew point (calculations with refrigeration dryer), 7 barg working pressure. Figures for refrigeration dryer and filter assume adequate condensate removal upstream. If installed after the dryer, multiply the condensate drain air flow by 3; if installed after the filter, multiply the air flow by 6.



Free your Energy

Oil/water separators

Hypersplit

Model	with refrigeration dryer in the system			senza essiccatore frigorifero nel sistema		
	oil type 1 m ³ /h	oil type 2 m ³ /h	oil type 3 m ³ /h	oil type 1 m ³ /h	oil type 2 m ³ /h	oil type 3 m ³ /h
Air flow with residual oil content of 20mg/l						
OWS001	100	80	70	130	100	90
OWS060	160	130	100	200	180	150
OWS075	250	200	170	330	300	250
OWS125	350	300	250	450	400	350
OWS185	700	600	500	900	800	650
OWS355	1400	1200	950	2000	1500	1250
OWS485	2700	2300	2000	3600	3000	2500
Air flow with residual oil content of 10mg/l						
OWS001	55	50	40	75	60	50
OWS060	100	75	60	120	100	80
OWS075	150	100	100	200	150	125
OWS125	200	150	130	250	200	175
OWS185	400	350	260	500	400	350
OWS355	750	650	550	1000	850	700
OWS485	1500	1300	1050	2000	1700	1400

Performances refer to FAD20°C/1 bar A and at the following working conditions: compressor suction air 25°C / 65% R.H., working pressure 7 barg, pressure dew point 3°C (with dryer) or minimum system temperature 30°C (without dryer), compressed air inlet temperature 35°C, ambient air temperature 25°C. All data are valid for rotary screw and vane compressors. For 1 or 2 stage piston/reciprocating compressors, multiply above values by 1,4; for 3 or 4 stage/piston compressors or conditions other than those shown above please contact us.

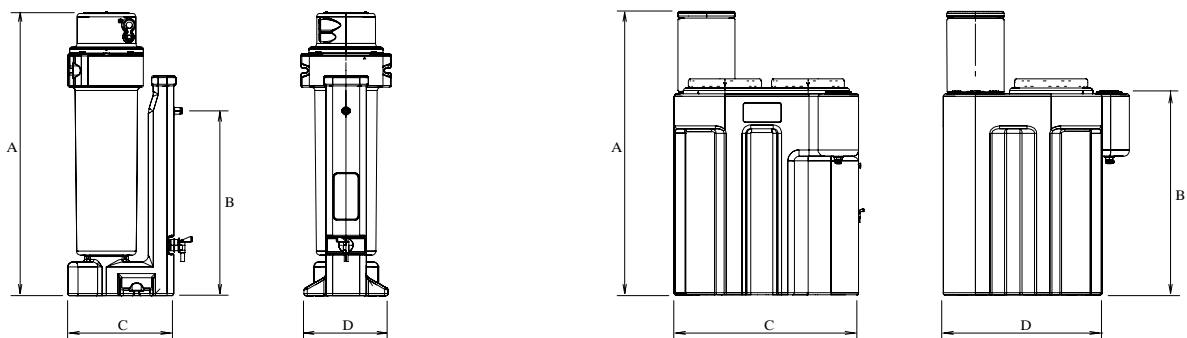
Oil types: type 1 - turbine, additive free

type 2 - mineral, polyalpha olefins (PAO), trimethylolpropane ester (TMP), pentaerythryl ester (PE)

type 3 - diesteres, triesters, polyoxyalkylene glycol (PAG)

All models are for operation at a max temperature of 35°C and min temperature of 5°C.

Model	tank vol. litres	hose connections		dimensions (mm)				weight (kg)		replacement kit	
		in	out	A	B	C	D	empty	full	carbon pack	vent filter
OWS001	N/A	1x1/2" - 1x1/4"	19mm	842	550	316	270	6	24,5	1xOWSCP1	OWSVF1
OWS060	60	1x1/2" - 1x1/4"	25mm	810	350	433	675	10	78,5	1xOWSCP1	OWSVF1
OWS075	75	1x1/2" - 1x1/4"	19mm	803	350	450	675	12	93,5	1xOWSCP1	OWSVF1
OWS125	125	1x1/2" - 3x1/4"	25mm	1195	650	500	750	27	159	1xOWSCP2	OWSVF2
OWS185	185	1x1/2" - 3x1/4"	25mm	1195	650	650	750	36	217	2xOWSCP2	OWSVF2
OWS355	355	1x1/2" - 3x1/4"	25mm	1535	860	700	1090	70	400	1xOWSCP3	OWSVF2
OWS485	485	1x1/2" - 3x1/4"	25mm	1535	860	1000	1090	97	550	2xOWSCP3	OWSVF1



Data contained in this publication is to be considered as indicative only. The manufacturer reserves the right to modify data without prior notice.

The Parker Hiross solutions



Free your Energy

Release your Power

Save Energy

Purify your Air

Stop Wasting Water

Respect the Environment

Improve your Factory's performances

Focus on your Core Business



Parker Hiross S.p.A.

Strada Zona Industriale 4 - 35020 S. Angelo di Piove, PD - ITALY - tel.: +39 049 9712111 - fax: +39 049 9701911
contact.dhh@parker.com - www.dh-hiross.com