



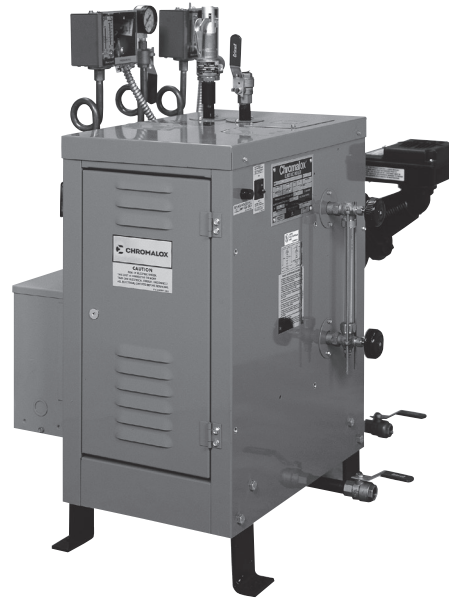
CHPES-A Medium Pressure Vertical Steam Boiler

- **Steam Capacity**
(18.1 - 542 Lbs/Hr @ 235 psig)
(8.2 - 246 kg/Hr @ 16.2 barg)
- 6-180 kW (20.5 - 614 Mbh)
- 400 or 480 Volt, 3 Phase (208, 240, and 600V Available)
- PED 2014/68/EU (17.23 barg)
- ASME Section I Pressure Vessel Carbon Steel Code "S" (250 psig) (CRN Available)
- 0.430 Dia. Incoloy Sheath Heating Elements
- One or Two Operating Controls Manual Reset High Limit
- Mechanical Float Water Feed Control with Low Water Cutoff
- Pressure Gauge, Water Level Sight Glass and Blow Down Drain Valve(s)
- PED or ASME Safety Relief Valve
- Optional Transformer

Applications

CHPES Medium Pressure Steam Boilers can be used wherever steam and process temperatures up to 400°F are required. CHPES boilers produce steam at pressures and temperatures considerably higher than CES models which are limited to 135 psig and 359°F.

CHPES Boilers are Ideal for stand-by operations requiring steam in remote areas of an industrial plant which might incur excessive pipe losses or expensive piping costs to supply from a central steam supply. They are ideal for off season periods when steam is needed for critical processes when the main boiler is shut down.



CHPES Boilers are Trimmed at 250 psig for operation up to 235 psig, come complete, factory tested and ready to operate. CHPES boilers are UL Listed, or CE certified.

Features

250 Lb Medium Pressure Construction — Pressure vessel is manufactured to the requirements of ASME Section I and code stamped "S".

Water Feed (Pump) Control and Low Water Cutoff (McDonnell Miller #194) automatically maintains correct water level and shuts off the boiler when the water level in the boiler drops below safe limits.

Operating Controls — Pressure control(s) provide accurate regulation of steam pressure.

High Limit Pressure Control — Manual reset pressure limit control shuts down boiler if maximum operating pressure is exceeded.

Water Level Sight Glass — Provides for constant visual observation of the water level in the boiler.

Steam Pressure Gauge with a range to 600 psig provided for visual indication of steam pressure.

Drain and Blow Down Valves — Facilitate cleaning the boiler during blow down sequence.

Optional Equipment

Auxiliary Electronic Low Water Cutoff — Solid State control board with low voltage probe provides backup protection for low water level in the boiler. This option is required by some state or local boiler codes.

Proportional Control with electronic solid state sequencer for modulated pressure control.

Electronic Level Control with automatic water feed and low water cutoff (dual probe). Low cost alternative to mechanical float type water feed control and low water cutoff.

High Pressure Water Feed System for remote installation.

Condensate Return System for recovery of steam condensate for boiler water feed.

Heavy Duty Vacuum Breaker prevents siphoning of condensate in condensate return systems.

Automatic Blow Down System eliminates need for daily manual blow-down maintenance.

Blow Down Separator for blow down of a boiler where steam and hot water cannot be discharged directly into a drain.

Note — A water feed or condensate return system is required on all CHPES boilers.

CHPES-A

Specifications and Ordering Information

| Steam* | | BHP | kW | MBH | Volts** | Phase | Trim | | | Dimensions (in/cm)*** | | | Weight | | |
|--|-------|------|-----|-------|---------|-------|------|------|-------|-----------------------|------------|-------------|------------|-----|-----|
| lbs/hr | kg/hr | | | | | | Psig | Barg | Cert. | W*** | L | H | Model | Lbs | kg |
| CHPES-A with One Operating Pressure Control | | | | | | | | | | | | | | | |
| 18.1 | 8.2 | 0.61 | 6 | 20.5 | 400 | 3 | 100 | 6.89 | EUR | 23" / 58.5cm | 31" / 79cm | 37" / 94cm | CHPES-6A | 230 | 105 |
| 18.1 | 8.2 | 0.61 | 6 | 20.5 | 480 | 3 | 100 | 6.89 | US | 23" / 58.5cm | 31" / 79cm | 37" / 94cm | CHPES-6A | 230 | 105 |
| 27.1 | 12.3 | 0.92 | 9 | 30.7 | 400 | 3 | 100 | 6.89 | EUR | 23" / 58.5cm | 31" / 79cm | 37" / 94cm | CHPES-9A | 235 | 107 |
| 27.1 | 12.3 | 0.92 | 9 | 30.7 | 480 | 3 | 100 | 6.89 | US | 23" / 58.5cm | 31" / 79cm | 37" / 94cm | CHPES-9A | 235 | 107 |
| 36.2 | 16.4 | 1.22 | 12 | 40.9 | 400 | 3 | 100 | 6.89 | EUR | 23" / 58.5cm | 31" / 79cm | 37" / 94cm | CHPES-12A | 240 | 109 |
| 36.2 | 16.4 | 1.22 | 12 | 40.9 | 480 | 3 | 100 | 6.89 | US | 23" / 58.5cm | 31" / 79cm | 37" / 94cm | CHPES-12A | 240 | 109 |
| 51.2 | 23.2 | 1.73 | 17 | 58 | 400 | 3 | 100 | 6.89 | EUR | 23" / 58.5cm | 31" / 79cm | 37" / 94cm | CHPES-17A | 245 | 111 |
| 51.2 | 23.2 | 1.73 | 17 | 58 | 480 | 3 | 100 | 6.89 | US | 23" / 58.5cm | 31" / 79cm | 37" / 94cm | CHPES-17A | 245 | 111 |
| 72.3 | 32.8 | 2.45 | 24 | 81.9 | 400 | 3 | 100 | 6.89 | EUR | 28" / 71cm | 35" / 89cm | 44" / 112cm | CHPES-24A | 300 | 136 |
| 72.3 | 32.8 | 2.45 | 24 | 81.9 | 480 | 3 | 100 | 6.89 | US | 28" / 71cm | 35" / 89cm | 44" / 112cm | CHPES-24A | 300 | 136 |
| 87.4 | 39.6 | 2.95 | 29 | 99 | 400 | 3 | 100 | 6.89 | EUR | 28" / 71cm | 35" / 89cm | 44" / 112cm | CHPES-29A | 310 | 141 |
| 87.4 | 39.6 | 2.95 | 29 | 99 | 480 | 3 | 100 | 6.89 | US | 28" / 71cm | 35" / 89cm | 44" / 112cm | CHPES-29A | 310 | 141 |
| 102.5 | 46.5 | 3.47 | 34 | 116 | 400 | 3 | 100 | 6.89 | EUR | 28" / 71cm | 35" / 89cm | 44" / 112cm | CHPES-34A | 315 | 143 |
| 102.5 | 46.5 | 3.47 | 34 | 116 | 480 | 3 | 100 | 6.89 | US | 28" / 71cm | 35" / 89cm | 44" / 112cm | CHPES-34A | 315 | 143 |
| 138.7 | 62.9 | 4.69 | 46 | 157 | 400 | 3 | 100 | 6.89 | EUR | 28" / 71cm | 35" / 89cm | 44" / 112cm | CHPES-46A | 320 | 145 |
| 138.7 | 62.9 | 4.69 | 46 | 157 | 480 | 3 | 100 | 6.89 | US | 28" / 71cm | 35" / 89cm | 44" / 112cm | CHPES-46A | 320 | 145 |
| 174.8 | 79.3 | 5.91 | 58 | 197.9 | 400 | 3 | 100 | 6.89 | EUR | 28" / 71cm | 35" / 89cm | 44" / 112cm | CHPES-58A | 380 | 172 |
| 174.8 | 79.3 | 5.91 | 58 | 197.9 | 480 | 3 | 100 | 6.89 | US | 28" / 71cm | 35" / 89cm | 44" / 112cm | CHPES-58A | 380 | 172 |
| 205 | 93 | 6.93 | 68 | 232 | 400 | 3 | 100 | 6.89 | EUR | 28" / 71cm | 35" / 89cm | 44" / 112cm | CHPES-68A | 390 | 177 |
| 205 | 93 | 6.93 | 68 | 232 | 480 | 3 | 100 | 6.89 | US | 28" / 71cm | 35" / 89cm | 44" / 112cm | CHPES-68A | 390 | 177 |
| CHPES-A with Two Operating Pressure Control | | | | | | | | | | | | | | | |
| 307 | 139 | 10.4 | 102 | 348 | 400 | 3 | 100 | 6.89 | EUR | 32" / 82cm | 38" / 97cm | 64" / 163cm | CHPES-102A | 625 | 284 |
| 307 | 139 | 10.4 | 102 | 348 | 480 | 3 | 100 | 6.89 | US | 32" / 82cm | 38" / 97cm | 64" / 163cm | CHPES-102A | 625 | 284 |
| 410 | 186 | 13.6 | 136 | 464 | 400 | 3 | 100 | 6.89 | EUR | 32" / 82cm | 38" / 97cm | 64" / 163cm | CHPES-136A | 785 | 356 |
| 410 | 186 | 13.6 | 136 | 464 | 480 | 3 | 100 | 6.89 | US | 32" / 82cm | 38" / 97cm | 64" / 163cm | CHPES-136A | 785 | 356 |
| 475 | 215.5 | 16.1 | 158 | 539 | 400 | 3 | 100 | 6.89 | EUR | 32" / 82cm | 38" / 97cm | 64" / 163cm | CHPES-158A | 785 | 356 |
| 475 | 215.5 | 16.1 | 158 | 539 | 480 | 3 | 100 | 6.89 | US | 32" / 82cm | 38" / 97cm | 64" / 163cm | CHPES-158A | 785 | 356 |
| 542 | 246 | 18.4 | 180 | 614 | 400 | 3 | 100 | 6.89 | EUR | 32" / 82cm | 38" / 97cm | 64" / 163cm | CHPES-180A | 790 | 359 |
| 542 | 246 | 18.4 | 180 | 614 | 480 | 3 | 100 | 6.89 | US | 32" / 82cm | 38" / 97cm | 64" / 163cm | CHPES-180A | 790 | 359 |

EUR package includes: CE certification, PED 2014/68/EU

US package includes: UL certification, ASME Section I Code "S"

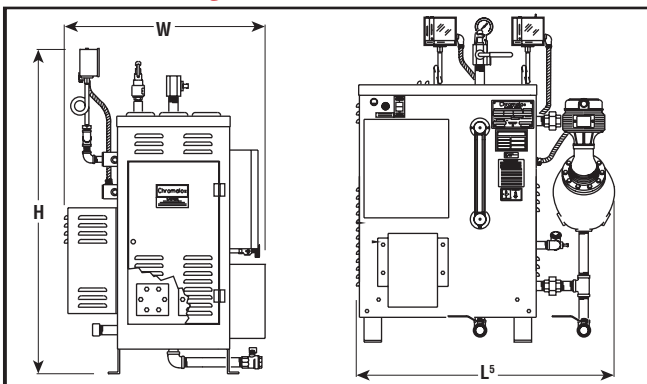
*Steaming capacity is based on producing saturated steam at 320°F 90psig with 50°F feed water. (160°C 6.2barg with 10°C feed water)

**All boilers have a 120V/1/60Hz control circuit. 220V/1/50Hz circuits are optional.

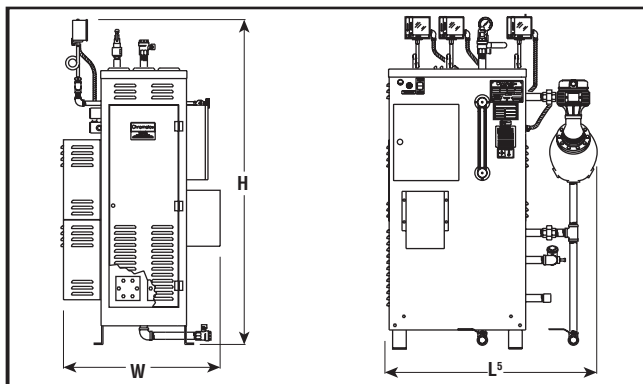
***Allow 21"(54cm) for element removal and 10"(26cm) around boiler for service access. Add 2"(5cm) to width dimension for optional transformer.

Dimensions

CHPES-6A through -18A



CHPES-24A through -180A



Plumbing Connections

| Boiler | NPT | |
|---------------|-------------|-----------------------|
| | Water Inlet | Steam or Water Outlet |
| CHPES 6-18 | 1/2 | 1/2 |
| CHPES 24-72 | 3/4 | 1 |
| CHPES 100 | 3/4 | 1-1/2 |
| CHPES 135-180 | 3/4 | 2 |

"Under the U.S. Federal Safe Drinking Water Act, it is unlawful to install or use this product in any service that comes into contact with water for human consumption (including drinking, food or beverage preparation, hand washing, or teeth brushing). This product is intended exclusively for use in non-potable service."