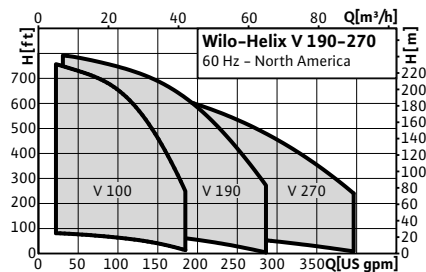


### Series description Wilo-Helix V



#### Design

Vertical multi-stage, high pressure centrifugal pump

#### Application

Pressure boosting and high pressure applications:

- Water supply and pressure boosting
- Industrial
- Process
- Chilled water
- Fire-fighting systems (non-NFPA)
- Irrigation

#### Equipment/function

- Corrosion proof stainless steel impellers, diffusers and stack sleeve

#### Scope of delivery

- Multistage Pump
- EISA compliant TEFC motor
- Operating and installation manual

#### Technical data

- Electrical connections: 3 phase, 208–230/460/575 Volt 60 Hz
- Fluid temperature Range:  $-4^{\circ}\text{F}$  to  $+248^{\circ}\text{F}$  ( $-20^{\circ}\text{C}$  to  $+120^{\circ}\text{C}$ ) with EPDM seal,  $+14^{\circ}\text{F}$  to  $+194^{\circ}\text{F}$  ( $-10^{\circ}\text{C}$  to  $+90^{\circ}\text{C}$ ) with Viton seal
- Maximum operating pressure: 230/360 PSI (model dependant)
- Standard motor enclosure: TEFC
- Ambient temperature: Max.  $+105^{\circ}\text{F}$  ( $+40^{\circ}\text{C}$ )
- Available construction:
  - 250 PSI ANSI Flanges
  - 304 SS/EPDM "E" version
  - 316L/Viton "V" version

#### Special features/product benefits

- High efficiency, laser-welded, optimised 2D/3D impellers
- EISA compliant TEFC, 2 pole motors

- Helix pumps easily adapted to existing installations due to modular pump housing (interchangeable with all major competitors)
- Suction and discharge pressure tapings on pump volute
- The complete Helix range is equipped with X-seal, a user-friendly, rebuild able cartridge mechanical seal for fast and easy maintenance operations
- Spacer couplings standard for 7 ½ Hp and larger models to eliminate the removal of the motor during the cartridge mechanical seal change
- New innovative motor stool design allows for the immediate access to the mechanical seal from either side of the pump
- An integral roller bearing built into the motor stool provides perfect alignment and eliminates thrust loading on motor bearings
- Flexible motor positioning for ease of wiring
- Long life sleeve bearings at each stage
- Shaft abrasion and corrosion protection via stainless steel sleeve

#### Materials

- Impellers, diffusers and flow sleeve 304 stainless steel "E" version and 316L stainless steel "V" version
- Cast iron, cathaphoresis coated volute for corrosion protection
- Floating flange design for ease of flange alignment to piping system
- Cast iron, cathaphoresis coated motor stool
- Stainless steel pump base, multiple drilled for ease of replacement
- Stainless steel shaft
- Stainless steel mechanical seal shaft sleeve
- EPDM or Viton fitted

# Multistage high-pressure multistage centrifugal pumps

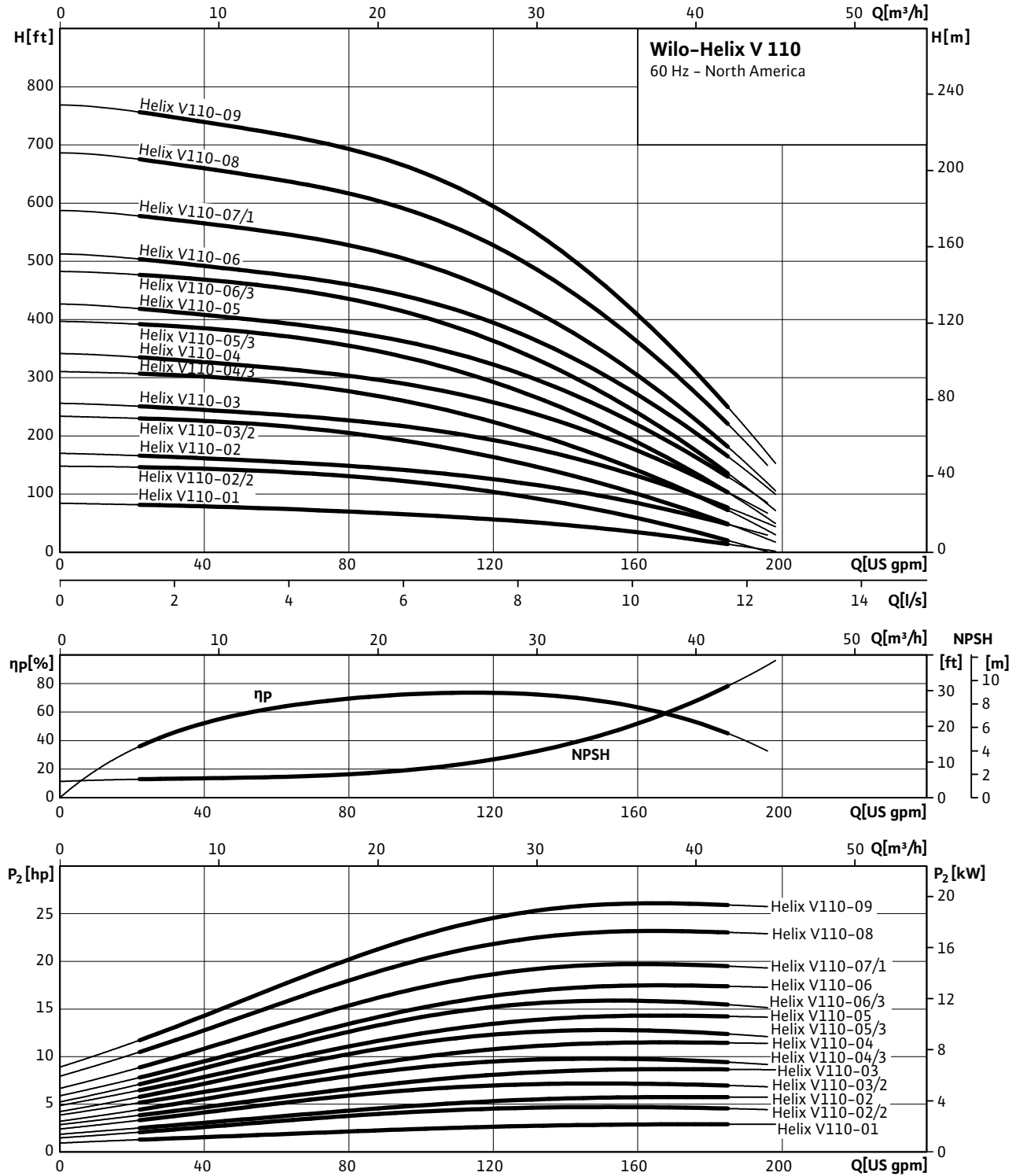
## Single pumps

### Technical data Wilo-Helix V

	Wilo
	Helix V
<b>Approved fluids</b>	
Potable water, heating water, process water	•
Condensate	–
Water/glycol mixtures (max. 40 %; with admixtures exceeding 10 %, the pumping data must be checked)	•
Other low viscous fluids (without abrasive or long-fibre constituents, provided they do not corrode the materials used)	•
<b>Power</b>	
Max. volume flow	380 US GPM
Max. delivery head	800 ft
Fluid temperature	–4 °F ... +248 °F
Max. ambient temperature	104 °F
Operating pressure	235 psi or 365 psi (model dependant)
Max. inlet pressure	145 psi
Nominal speed	3450 rpm
<b>Motor</b>	
Mains connection 1~ (permitted voltage tolerance +/- 10%)	–
Mains connection 3~ (permitted voltage tolerance +/- 10%)	•
Insulation class	F
Motor efficiency standard	EISA
Motor enclosure	TEFC
<b>Connections</b>	
Nominal connection diameters DN	V110 – 2", V190 – 2½", V270–3"
Flange type	250 psi ANSI
Victaulic connections	–
<b>Materials</b>	
Impeller	AISI 304
Stage chambers	ANSI 304
Pump housing	Cast iron
Pump shaft	Stainless steel
Seal	EPDM/FKM (Viton optional)
Mechanical seal	siliconcarbide/carbon or tungstencarbide/carbon
Other mechanical seals	siliconcarbide/siliconcarbide
Pressure shroud	ANSI 304
Bearing	Tungsten carbide/ceramic
Pump base	EN-GJL-250 (cataphoretic-coated)

### Pump curves Wilo-Helix V

#### Wilo-Helix V 110

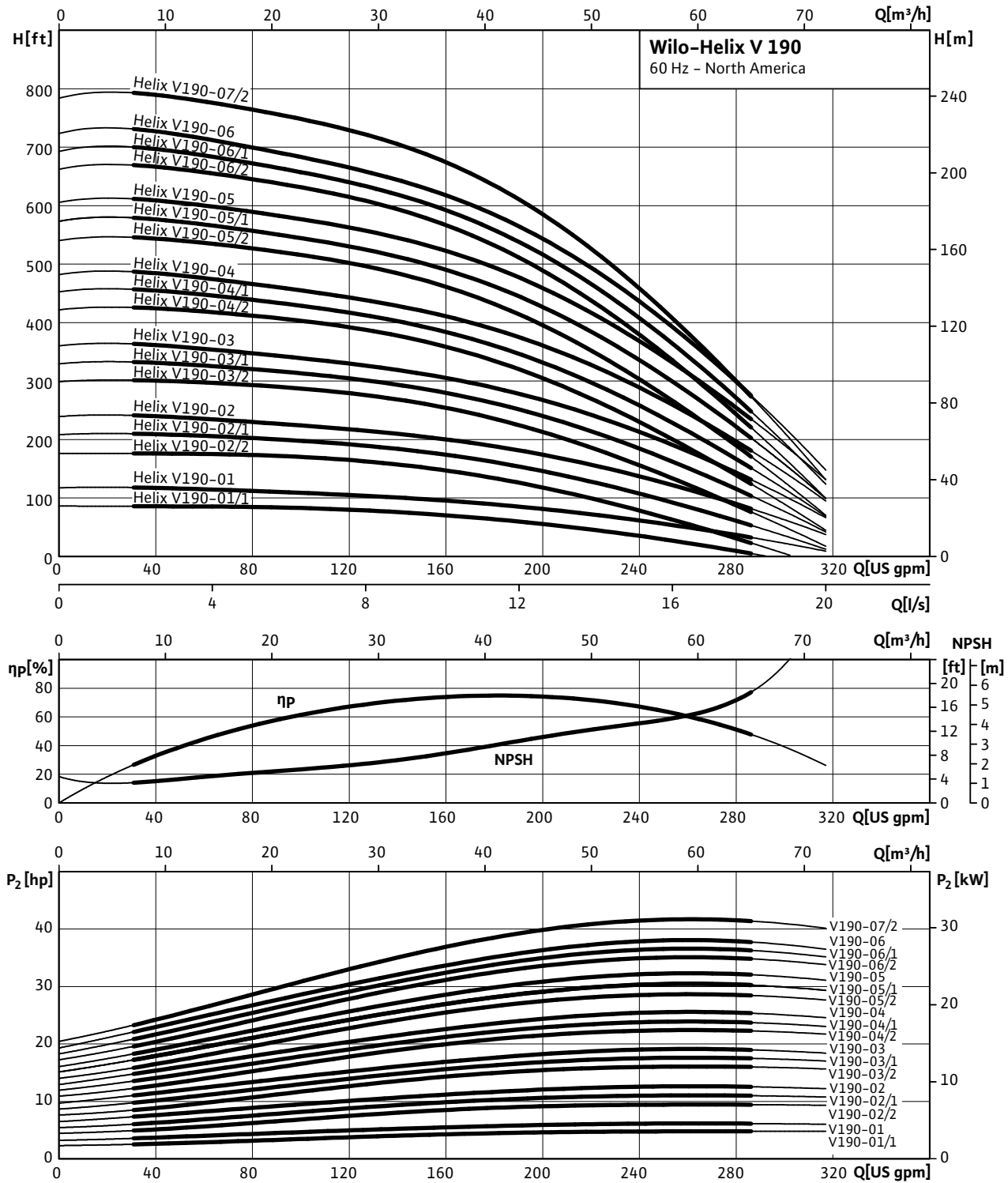


# Multistage high-pressure multistage centrifugal pumps

## Single pumps

### Pump curves Wilo-Helix V

#### Wilo-Helix V 190



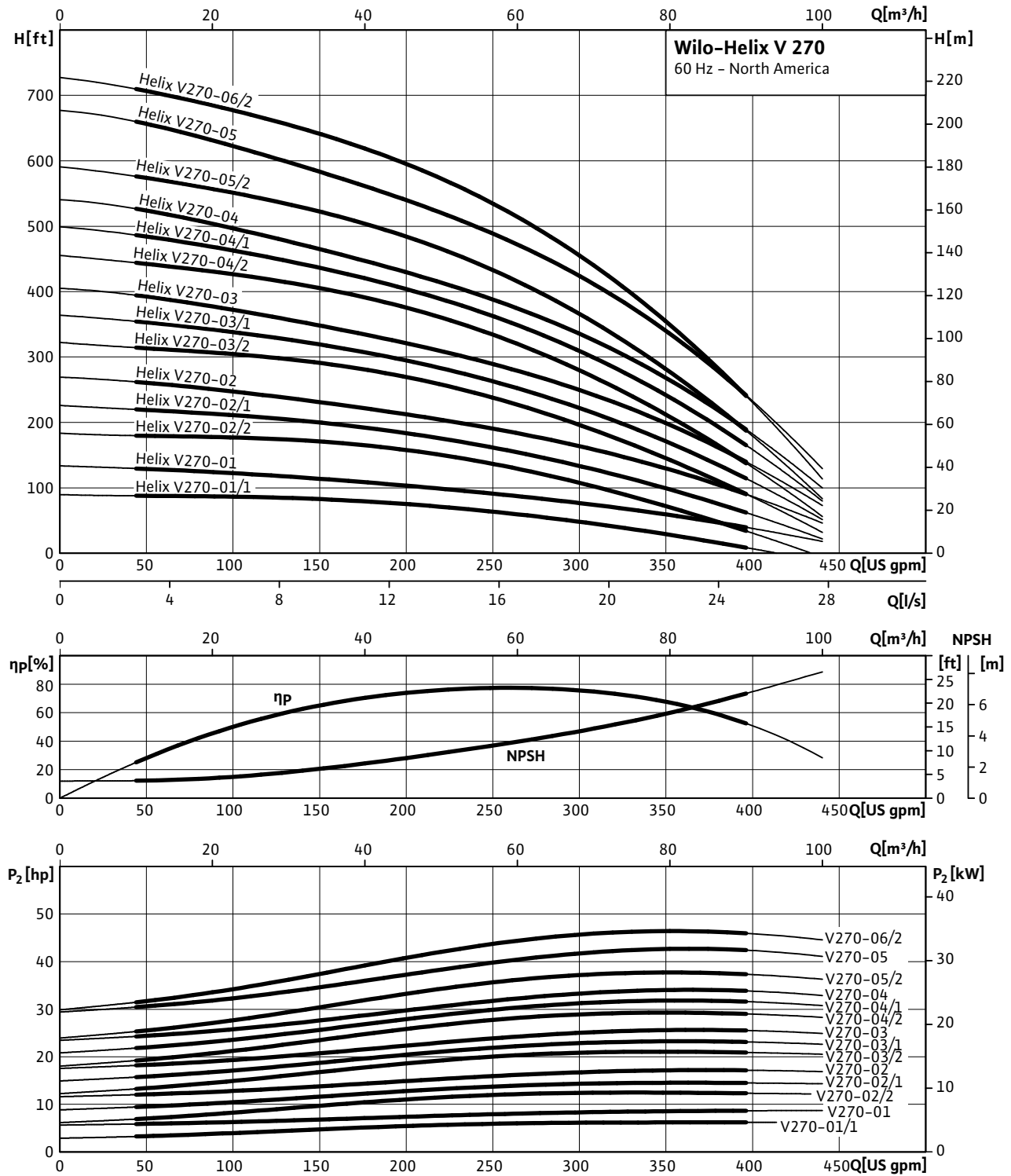
# Multistage high-pressure multistage centrifugal pumps



Single pumps

## Pump curves Wilo-Helix V

Wilo-Helix V 270



# Multistage high-pressure multistage centrifugal pumps

## Single pumps

### Terminal diagram, motor data Wilo-Helix V

Motor data					
Wilo-Helix V	Nominal motor power		Current plated at 230V 60Hz	Current plated at 460V 60Hz	Current plated at 575V 60Hz
	$P_2$		$I$		
	hp	kW	A		
Helix V 110-01	3	2.2	10	5	3
Helix V 110-02	7.5	5.6	17.2	8.6	6.9
Helix V 110-02/2	5	3.7	13.2	6.6	4.6
Helix V 110-03	10	7.5	22.4	11.2	9
Helix V 110-03/2	7.5	5.6	17.2	8.6	6.9
Helix V 110-04	15	11.2	34.4	17.2	13.5
Helix V 110-04/3	10	7.5	22.4	11.2	9
Helix V 110-05	15	11.2	34.4	17.2	13.5
Helix V 110-05/3	15	11.2	34.4	17.2	13.5
Helix V 110-06	20	14.9	45	22.5	18.4
Helix V 110-06/3	20	14.9	45	22.5	18.4
Helix V 110-07/1	20	14.9	45	22.5	18.4
Helix V 110-08	25	18.6	56	28	22
Helix V 110-09	30	22.4	66	33	26.2
Helix V 190-01	7.5	5.6	17.2	8.6	6.9
Helix V 190-01/1	5	3.7	13.2	6.6	4.6
Helix V 190-02	15	11.2	34.4	17.2	13.5
Helix V 190-02/1	15	11.2	34.4	17.2	13.5
Helix V 190-02/2	10	7.5	22.4	11.2	9
Helix V 190-03	20	14.9	45	22.5	18.4
Helix V 190-03/1	20	14.9	45	22.5	18.4
Helix V 190-03/2	20	14.9	45	22.5	18.4
Helix V 190-04	30	22.4	66	33	26.2
Helix V 190-04/1	25	18.6	56	28	22
Helix V 190-04/2	25	18.6	56	28	22
Helix V 190-05/2	30	22.4	66	33	26.2
Helix V 190-06	40	29.8	90	45	36
Helix V 190-06/1	40	29.8	90	45	36
Helix V 190-06/2	40	29.8	90	45	36
Helix V 190-07/2	50	37.3	108	54	43.6
Helix V 270-01/1	7.5	5.6	17.2	8.6	6.9
Helix V 270-01	10	7.5	22.4	11.2	9
Helix V 270-02/2	15	11.2	34.4	17.2	13.5
Helix V 270-02/1	15	11.2	34.4	17.2	13.5
Helix V 270-02	20	14.9	45	22.5	18.4
Helix V 270-03/2	25	18.6	56	28	22
Helix V 270-03/1	25	18.6	56	28	22
Helix V 270-03	30	22.4	66	33	26.2
Helix V 270-04/2	30	22.4	66	33	26.2
Helix V 270-04/1	40	29.8	90	45	36
Helix V 270-04	40	29.8	90	45	36
Helix V 270-05/2	40	29.8	90	45	36
Helix V 270-05	50	37.3	108	54	43.6
Helix V 270-06/2	50	37.3	108	54	43.6

# Multistage high-pressure multistage centrifugal pumps

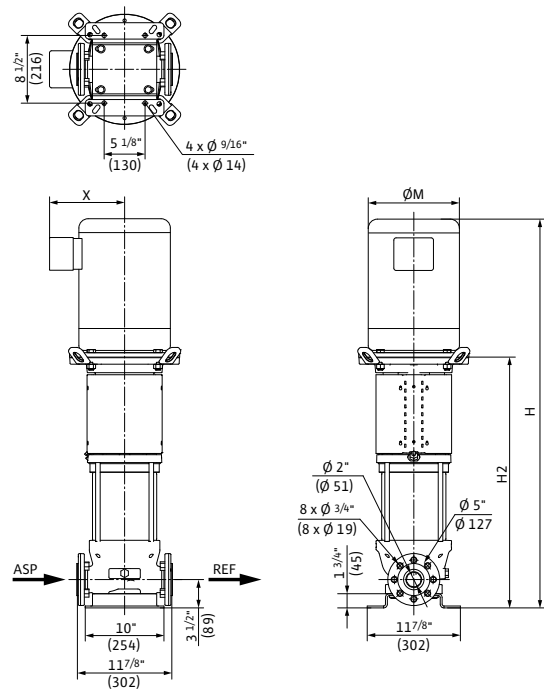


## Single pumps

### Dimensions, weights Wilo-Helix V

#### Dimension drawing

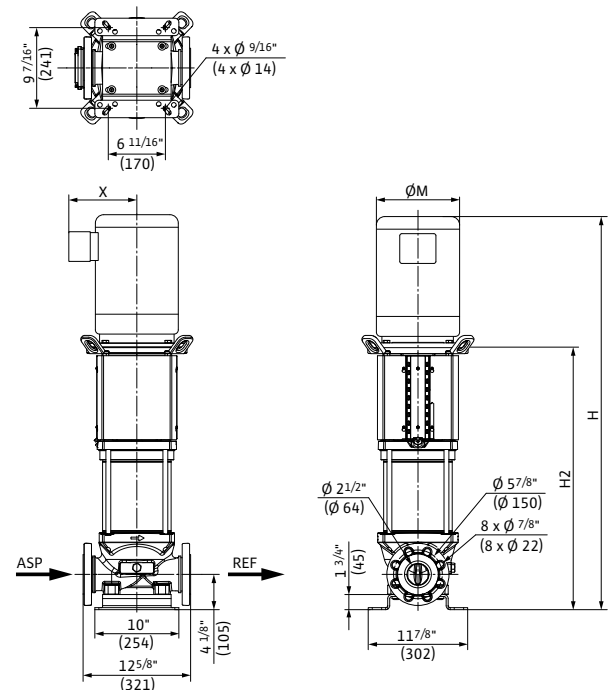
##### Wilo-Helix V 110



ASP: Suction side, REF: Discharge side

#### Dimension drawing

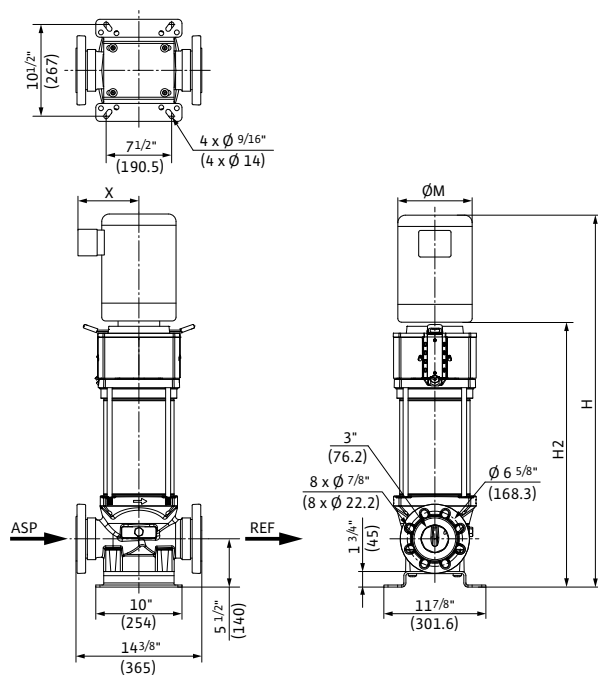
##### Wilo-Helix V 190



ASP: Suction side, REF: Discharge side

#### Dimension drawing

##### Wilo-Helix V 270



ASP: Suction side, REF: Discharge side

# Multistage high-pressure multistage centrifugal pumps

## Single pumps

### Dimensions, weights Wilo-Helix V

Dimensions, weights											
Wilo-Helix V	Pump shaft diameter	Dimensions								Weight	
		H		H <sub>2</sub>		Ø g		X		M	
	mm	"	mm	"	mm	"	mm	"	mm	lbs	kg
Helix V 110-01	Ø 22	35 <sup>1</sup> / <sub>8</sub>	892	21 <sup>5</sup> / <sub>16</sub>	541	8 <sup>5</sup> / <sub>8</sub>	218	5 <sup>1</sup> / <sub>8</sub>	130	166	75
Helix V 110-02	Ø 22	42 <sup>5</sup> / <sub>16</sub>	1,074	26 <sup>1</sup> / <sub>4</sub>	666	11 <sup>1</sup> / <sub>2</sub>	292	7 <sup>3</sup> / <sub>8</sub>	187	303	138
Helix V 110-02/2	Ø 22	35 <sup>1</sup> / <sub>2</sub>	902	21 <sup>11</sup> / <sub>16</sub>	551	8 <sup>5</sup> / <sub>8</sub>	218	5 <sup>7</sup> / <sub>8</sub>	149	180	82
Helix V 110-03	Ø 22	44 <sup>5</sup> / <sub>16</sub>	1,125	28 <sup>1</sup> / <sub>4</sub>	717	11 <sup>1</sup> / <sub>2</sub>	292	7 <sup>3</sup> / <sub>8</sub>	187	331	150
Helix V 110-03/2	Ø 22	44 <sup>5</sup> / <sub>16</sub>	1,125	28 <sup>1</sup> / <sub>4</sub>	717	11 <sup>1</sup> / <sub>2</sub>	292	7 <sup>3</sup> / <sub>8</sub>	187	312	142
Helix V 110-04	Ø 22	51 <sup>3</sup> / <sub>8</sub>	1,305	31 <sup>5</sup> / <sub>16</sub>	796	13 <sup>1</sup> / <sub>4</sub>	337	9 <sup>1</sup> / <sub>2</sub>	242	448	203
Helix V 110-04/3	Ø 22	46 <sup>1</sup> / <sub>4</sub>	1,175	30 <sup>3</sup> / <sub>16</sub>	767	11 <sup>1</sup> / <sub>2</sub>	292	7 <sup>3</sup> / <sub>8</sub>	187	334	151
Helix V 110-05	Ø 22	53 <sup>5</sup> / <sub>16</sub>	1,355	33 <sup>5</sup> / <sub>16</sub>	846	13 <sup>1</sup> / <sub>4</sub>	337	9 <sup>1</sup> / <sub>2</sub>	242	453	205
Helix V 110-05/3	Ø 22	53 <sup>3</sup> / <sub>8</sub>	1,356	33 <sup>3</sup> / <sub>8</sub>	847	13 <sup>1</sup> / <sub>4</sub>	337	9 <sup>1</sup> / <sub>2</sub>	242	459	208
Helix V 110-06	Ø 22	55 <sup>3</sup> / <sub>8</sub>	1,406	35 <sup>5</sup> / <sub>16</sub>	897	13 <sup>1</sup> / <sub>4</sub>	337	9 <sup>1</sup> / <sub>2</sub>	242	439	199
Helix V 110-06/3	Ø 22	55 <sup>3</sup> / <sub>8</sub>	1,406	35 <sup>5</sup> / <sub>16</sub>	897	13 <sup>1</sup> / <sub>4</sub>	337	9 <sup>1</sup> / <sub>2</sub>	242	437	198
Helix V 110-07/1	Ø 22	57 <sup>5</sup> / <sub>16</sub>	1,456	37 <sup>5</sup> / <sub>16</sub>	947	13 <sup>1</sup> / <sub>4</sub>	337	9 <sup>1</sup> / <sub>2</sub>	242	441	200
Helix V 110-08	Ø 22	60 <sup>9</sup> / <sub>16</sub>	1,539	39 <sup>1</sup> / <sub>4</sub>	997	13 <sup>1</sup> / <sub>4</sub>	337	9 <sup>1</sup> / <sub>2</sub>	242	572	259
Helix V 110-09	Ø 22	62 <sup>9</sup> / <sub>16</sub>	1,589	41 <sup>1</sup> / <sub>4</sub>	1,047	13 <sup>1</sup> / <sub>4</sub>	337	13 <sup>1</sup> / <sub>8</sub>	333	567	257
Helix V 190-01	Ø 22	41 <sup>9</sup> / <sub>16</sub>	1,056	25 <sup>1</sup> / <sub>2</sub>	648	11 <sup>1</sup> / <sub>2</sub>	292	7 <sup>3</sup> / <sub>8</sub>	187	323	147
Helix V 190-01/1	Ø 22	34 <sup>3</sup> / <sub>4</sub>	883	20 <sup>15</sup> / <sub>16</sub>	532	8 <sup>5</sup> / <sub>8</sub>	218	5 <sup>7</sup> / <sub>8</sub>	149	196	89
Helix V 190-02	Ø 22	49 <sup>3</sup> / <sub>8</sub>	1,254	29 <sup>5</sup> / <sub>16</sub>	745	13 <sup>1</sup> / <sub>4</sub>	337	9 <sup>1</sup> / <sub>2</sub>	242	459	208
Helix V 190-02/1	Ø 22	49 <sup>3</sup> / <sub>8</sub>	1,254	29 <sup>5</sup> / <sub>16</sub>	745	13 <sup>1</sup> / <sub>4</sub>	337	9 <sup>1</sup> / <sub>2</sub>	242	459	208
Helix V 190-02/2	Ø 22	44 <sup>1</sup> / <sub>4</sub>	1,123	28 <sup>1</sup> / <sub>8</sub>	715	11 <sup>1</sup> / <sub>2</sub>	292	7 <sup>3</sup> / <sub>8</sub>	187	347	157
Helix V 190-03	Ø 22	52	1,321	31 <sup>15</sup> / <sub>16</sub>	812	13 <sup>1</sup> / <sub>4</sub>	337	9 <sup>1</sup> / <sub>2</sub>	242	448	203
Helix V 190-03/1	Ø 22	52	1,321	31 <sup>15</sup> / <sub>16</sub>	812	13 <sup>1</sup> / <sub>4</sub>	337	9 <sup>1</sup> / <sub>2</sub>	242	448	203
Helix V 190-03/2	Ø 22	52	1,321	31 <sup>15</sup> / <sub>16</sub>	812	13 <sup>1</sup> / <sub>4</sub>	337	9 <sup>1</sup> / <sub>2</sub>	242	448	203
Helix V 190-04	Ø 22	55 <sup>7</sup> / <sub>8</sub>	1,420	34 <sup>9</sup> / <sub>16</sub>	878	13 <sup>1</sup> / <sub>4</sub>	337	13 <sup>1</sup> / <sub>8</sub>	333	576	261
Helix V 190-04/1	Ø 22	55 <sup>7</sup> / <sub>8</sub>	1,420	34 <sup>9</sup> / <sub>16</sub>	878	13 <sup>1</sup> / <sub>4</sub>	337	9 <sup>1</sup> / <sub>2</sub>	242	578	262
Helix V 190-04/2	Ø 22	55 <sup>7</sup> / <sub>8</sub>	1,420	34 <sup>9</sup> / <sub>16</sub>	878	13 <sup>1</sup> / <sub>4</sub>	337	9 <sup>1</sup> / <sub>2</sub>	242	578	262
Helix V 190-05/2	Ø 22	58 <sup>9</sup> / <sub>16</sub>	1,487	37 <sup>3</sup> / <sub>16</sub>	945	13 <sup>1</sup> / <sub>4</sub>	337	13 <sup>1</sup> / <sub>8</sub>	333	587	266
Helix V 190-06	Ø 22	64 <sup>7</sup> / <sub>8</sub>	1,648	39 <sup>13</sup> / <sub>16</sub>	1,012	16 <sup>7</sup> / <sub>8</sub>	429	14 <sup>1</sup> / <sub>8</sub>	359	722	328
Helix V 190-06/1	Ø 22	64 <sup>7</sup> / <sub>8</sub>	1,648	39 <sup>13</sup> / <sub>16</sub>	1,012	16 <sup>7</sup> / <sub>8</sub>	429	14 <sup>1</sup> / <sub>8</sub>	359	722	328
Helix V 190-06/2	Ø 22	64 <sup>7</sup> / <sub>8</sub>	1,648	39 <sup>13</sup> / <sub>16</sub>	1,012	16 <sup>7</sup> / <sub>8</sub>	429	14 <sup>1</sup> / <sub>8</sub>	359	722	328
Helix V 190-07/2	Ø 22	67 <sup>9</sup> / <sub>16</sub>	1,717	42 <sup>7</sup> / <sub>16</sub>	1,078	16 <sup>7</sup> / <sub>8</sub>	429	14 <sup>1</sup> / <sub>8</sub>	359	809	367
Helix V 270-01/1	Ø 22	42 <sup>15</sup> / <sub>16</sub>	1,091	26 <sup>7</sup> / <sub>8</sub>	683	11 <sup>1</sup> / <sub>2</sub>	292	7 <sup>3</sup> / <sub>8</sub>	187	337	153
Helix V 270-01	Ø 22	42 <sup>15</sup> / <sub>16</sub>	1,091	26 <sup>7</sup> / <sub>8</sub>	683	11 <sup>1</sup> / <sub>2</sub>	292	7 <sup>3</sup> / <sub>8</sub>	187	356	161
Helix V 270-02/2	Ø 22	52 <sup>1</sup> / <sub>16</sub>	1,322	32	813	13 <sup>1</sup> / <sub>4</sub>	337	9 <sup>1</sup> / <sub>2</sub>	242	486	221
Helix V 270-02/1	Ø 22	52 <sup>1</sup> / <sub>16</sub>	1,322	32	813	13 <sup>1</sup> / <sub>4</sub>	337	9 <sup>1</sup> / <sub>2</sub>	242	486	221
Helix V 270-02	Ø 22	52 <sup>1</sup> / <sub>16</sub>	1,322	32	813	13 <sup>1</sup> / <sub>4</sub>	337	9 <sup>1</sup> / <sub>2</sub>	242	460	208
Helix V 270-03/2	Ø 22	57 <sup>1</sup> / <sub>4</sub>	1,455	35 <sup>15</sup> / <sub>16</sub>	913	13 <sup>1</sup> / <sub>4</sub>	337	9 <sup>1</sup> / <sub>2</sub>	242	591	268
Helix V 270-03/1	Ø 22	57 <sup>1</sup> / <sub>4</sub>	1,455	35 <sup>15</sup> / <sub>16</sub>	913	13 <sup>1</sup> / <sub>4</sub>	337	9 <sup>1</sup> / <sub>2</sub>	242	591	268
Helix V 270-03	Ø 22	57 <sup>1</sup> / <sub>4</sub>	1,455	35 <sup>15</sup> / <sub>16</sub>	913	13 <sup>1</sup> / <sub>4</sub>	337	9 <sup>1</sup> / <sub>2</sub>	242	591	268
Helix V 270-04/2	Ø 22	61 <sup>3</sup> / <sub>16</sub>	1,555	39 <sup>7</sup> / <sub>8</sub>	1,013	13 <sup>1</sup> / <sub>4</sub>	337	9 <sup>1</sup> / <sub>2</sub>	242	598	271
Helix V 270-04/1	Ø 22	64 <sup>15</sup> / <sub>16</sub>	1,649	39 <sup>7</sup> / <sub>8</sub>	1,013	16 <sup>7</sup> / <sub>8</sub>	429	14 <sup>1</sup> / <sub>8</sub>	359	722	328
Helix V 270-04	Ø 22	64 <sup>15</sup> / <sub>16</sub>	1,649	39 <sup>7</sup> / <sub>8</sub>	1,013	16 <sup>7</sup> / <sub>8</sub>	429	14 <sup>1</sup> / <sub>8</sub>	359	722	328
Helix V 270-05/2	Ø 22	68 <sup>7</sup> / <sub>8</sub>	1,749	43 <sup>13</sup> / <sub>16</sub>	1,113	16 <sup>7</sup> / <sub>8</sub>	429	14 <sup>1</sup> / <sub>8</sub>	359	729	331
Helix V 270-05	Ø 22	69	1,752	43 <sup>13</sup> / <sub>16</sub>	1,113	16 <sup>7</sup> / <sub>8</sub>	429	14 <sup>1</sup> / <sub>8</sub>	359	810	367
Helix V 270-06/2	Ø 22	72 <sup>7</sup> / <sub>8</sub>	1,852	47 <sup>3</sup> / <sub>4</sub>	1,213	16 <sup>7</sup> / <sub>8</sub>	429	14 <sup>1</sup> / <sub>8</sub>	359	819	371