

Degasser Unit (Unit 9600) in two parallel trains		Request Process Flow Schemes 9600/09/010 to 9600/08/015	
<b>Degasser Unit Train A</b>		<b>Degasser Unit Train B</b>	
E9605A, E9605C, E9605E, E9605G	Famet live oil/stabilised oil heat exchangers, 1,460mm i.d., 8157mm l, 23,000kg, KCS	E9605B, E9605D, E9605F, E9605H, E9606B	Famet live oil/stabilised oil heat exchangers, 1,460mm i.d., 8157mm l, 23,000kg, KCS
E9606A	Arsopi live oil/heat transfer fluid heater, 1,450mm i.d., 5,960mm l, 17,000kg, KCS	E9606B	Arsopi live oil/HTF heater, 1,450mm i.d., 5,960mm l, 17,000kg, KCS
V9601	NOT INCLUDED: Arsopi degasser vessel, main vessel 6,700mm dia., 33,000mm l, boot 1,500mm i.d., 2,350mm l, CS Forwards offgas to V9605A 1st stage knock-out drum Returns stabilised crude through P9615A stabilised crude pump Forwards water from boot to P9616A degasser water pump	V9604B	Quast degasser vessel, main vessel 4,500 dia., 22,500mm l, boot 1,200mm i.d., 1,200mm l, 82,000kg, KCS, horizontal Forwards offgas to V9605B 1st stage knock-out drum Returns stabilised crude through P9615B stabilised crude pump Forwards water from boot to P9616B degasser water pump
P-9615A	Weir Gabbioneta stabilised crude pump, 480kW, 8,000kg Returns and cools through live oil/stabilised oil heat exchangers E-9605A/C/E/G	P9615B	Weir Gabbioneta stabilised crude pump, 480kW, 8,000kg
P9616A	Weir Gabbioneta degasser water pumps, 5.5kW, 900kg Forwards to water treatment unit (U-9900 not included)	P9616B	Weir Gabbioneta degasser water pumps, 5.5kW, 900kg
V9605A	Arsopi 1 <sup>st</sup> stage knock-out drum, 1,500mm i.d., 2,570mm l, 4,715kg, KCS, vertical with half skirt Forwards gas to K9601A degasser two stage compressor Returns liquids to V9601 degasser vessel	V9605B	2x Arsopi 1 <sup>st</sup> stage knock-out drum, 1,500mm i.d., 2,570mm l, 4,715kg, KCS, vertical with half skirt Forwards gas to K9601B degasser two stage compressor Returns liquids to V9604B degasser vessel
K9601A	Siemens degasser fixed speed, two stage, centrifugal compressor with control valve suction controlling pressure in degasser vessel  anti-surge spillback (routed to inlet of degasser vessel) with air cooler 1,800kW motor space heater for motor driver gearbox twin full flow primary seal gas filters twin full flow buffer gas filters compressor lube oil system including main pump auxiliary pump reservoir with 2x heaters twin filter accumulator rundown tank air cooler with fans noise enclosure with 2x air circulation fans	K9601B	Siemens degasser compressor with control valve suction controlling pressure in degasser vessel  anti-surge spillback (routed to inlet of degasser vessel) with air cooler 1,800kW motor space heater for motor driver gearbox twin full flow primary seal gas filters twin full flow buffer gas filters compressor lube oil system including main pump auxiliary pump reservoir with 2x heaters twin filter accumulator rundown tank air cooler with fans Noise enclosure with 2x air circulation fans
E9607A	Famet 1 <sup>st</sup> stage condenser with 2x 15kW fans, 4x 17.5kW winterising heaters, each 9,000mm x 3,500mm x 800mm (2x heater bundle), 12,000kg, stainless steel	E9607B	Famet 1 <sup>st</sup> stage condenser with 2x 15kW fans, 4x 17.5kW winterising heaters, each 9,000mm x 3,500mm x 800mm (2x heater bundle), 12,000kg, stainless steel
V9606A	Arsopi 1 <sup>st</sup> stage separator, main vessel, 1,800mm, 5,400mm l, boot 475mm i.d., 1,400mm l, 5450kg, KCS, horizontal Forwards gas to V9607A 2 <sup>nd</sup> stage knock-out drum Forwards liquids through P9617A 1 <sup>st</sup> stage HC pump to E9608A 2 <sup>nd</sup> stage condenser Returns from boot to V9601 degasser vessel	V9606B	Arsopi 1 <sup>st</sup> stage separator, main vessel, 1,800mm, 5,400mm l, boot 475mm i.d., 1,400mm l, 5450kg, KCS, horizontal Forwards gas to V9607B 2 <sup>nd</sup> stage knock-out drum Forwards liquids through P9617B 1 <sup>st</sup> stage HC pump to E9608A 2 <sup>nd</sup> stage condenser Returns from boot to V9604B degasser vessel
V9607A	Arsopi 2 <sup>nd</sup> stage knock-out drum, 1,000mm i.d., 2,570mm l, 1,700kg, KCS, vertical on legs Forwards to K9601A 2 <sup>nd</sup> stage of degasser two stage compressor Returns to V9606A 1st stage separator	V9607B	Arsopi 2 <sup>nd</sup> stage knock-out drum, 1,000mm i.d., 2,570mm l, 1,700kg, KCS, vertical on legs Forwards to K9601B 2 <sup>nd</sup> stage of degasser two stage compressor Returns to V9606B 1st stage separator
P9617A	Weir & Gabbioneta 1 <sup>st</sup> stage HC pump, 55kW, 1,900kg	P9617B	2 Weir & Gabbioneta 1 <sup>st</sup> stage HC pump, 55kW, 1,900kg
E9608A	Famet 2 <sup>nd</sup> stage condenser with 2x 22.2kW fans, 4x 25kW winterising heaters, each 9,000mm x 5,200mm x 750mm (2x heater bundle), 11,000kg, stainless steel	E9608B	Famet 2 <sup>nd</sup> stage condenser with 2x 22.2kW fans, 4x 25kW winterising heaters, each 9,000mm x 5,200mm x 750mm (2x heater bundle) 11,000kg, stainless steel
V9608A	Arsopi 2 <sup>nd</sup> stage separator, main vessel 1,750mm i.d., 5,200mm l, boot 400mm i.d., 1,100mm l, 9,160kg, KCS, horizontal Forwards through P9618A stabiliser feed pump Forwards to V9903 LP fuel gas knock-out drum (not included) Returns from boot to V9601 degasser vessel	V9608B	Arsopi 2 <sup>nd</sup> stage separator, main vessel 1,750mm i.d., 5,200mm l, boot 400mm i.d., 1,100mm l, 9,160kg, KCS, horizontal Forwards through P9618B stabiliser feed pump Forwards to V9903 LP fuel gas knock-out drum (not included) Returns from boot to V9604B degasser vessel
P9618A	Weir & Gabbioneta stabiliser feed pump, 22kW, 1,100kg Forwards to E9401 stabiliser feed preheater Forwards to E9302 butane rundown cooler	P9618B	Weir & Gabbioneta stabiliser feed pump, 22kW, 1,100kg Forwards to E9401 stabiliser feed preheater Forwards to E9302 butane rundown cooler
E9609A	Famet 2 <sup>nd</sup> stage condenser with 2x 7.5kW fans, 4x 15kW winterising heaters, each 9,000mm x 3,450mm x 750mm (1x heater bundle), 7,500kg, stainless steel	E9609B	Famet 2 <sup>nd</sup> stage condenser each with 2x 7.5kW fans, 4x 15kW winterising heaters, each 9,000mm x 3,450mm x 750mm (1x heater bundle), 7,500kg, stainless steel Feeds from K9601B degasser two stage compressor Forwards to V9604B degasser vessel

Heat Transfer Fluid (HTF) System	
F9601	LHT HTF furnace, CS structure, alloy internals
K9605A, K9605S	2x LHT 55kW forced draught fans
K9606	LHT 45kW induced draught fan
E9610	LHT air preheater
E9613	LHT flue gas cooler
T9604	Siemerink HTF storage tank, 6,000mm i.d., 8,000mm l, 16,500kg
P9625	HTF makeup pump, 30kW, 600kg
V9610	Arsopi HTF expansion vessel, 3,000mm i.d., 8,400mm l, 35,000kg, KCS, vertical with skirt
P9620A, P9620S	2x Weir & Gabbioneta HTF HT circulation pumps, 360kW, 7,000kg
P9621A, P9612S	2x Weir & Gabbioneta HTF LT circulation pumps, 260kW, 5,500kg
V9611	Arsopi HTF drain collection vessel, 1,800mm dia., 4,500mm l, boot 800mm dia., 500mm l, 7,600kg, KCS, horizontal
P9626	Weir & Gabbioneta HTF drain pump, 5.5kW, 1,150kg
V9625	Arsopi furnace LP fuel gas knock-out drum, 810mm i.d., 2,450mm h, stainless steel, vertical on legs, 1,000kg, stainless steel

Forwards to F9601 HTF furnace or to Flare

Gas Plant Unit (Unit 9400)		Request Process Flow Scheme 9400/08/001 to /003
<b>Stabiliser</b>		
E9401	Arsopi stabiliser feed shell & tube heat exchanger preheater, 520mm i.d., 4,154mm l, 2,400kg, KCS	
C9401	Arsopi stabiliser column including internals, 1,600mm i.d., 32,590mm l, 38,000kg, vertical with skirt	Forwards to E9403 stabiliser OVHD condenser To E9404 naptha rundown cooler and then crude oil storage
E9402	Arsopi stabiliser reboiler, 740mm i.d., 5873mm l, 7,000kg, KCS, vertical with lugs	Returns to C9401 stabiliser column
E9403	Famet stabiliser OVHD condenser with 2x 18.5kW fans, 4x 25kW winterising heaters, LTCS	
V9401	Arsopi stabiliser OVHD accumulator, main vessel 1,900mm i.d., 5,800mm l, boot 400mm i.d., 1,100mm l, 7,085kg, KCS	Forwards to P9401A/S stabiliser reflux pumps or P9402A/S stabiliser LPG pumps Forwards gas to V9903 LP fuel gas knock-out drum (not included) Boot forwards to P9616A/B degasser water pumps
P9401A, P9401S	2x Weir Gabbioneta stabiliser reflux pumps, 1,000kg, 15kW, KCS	
E9404	Famet naptha rundown cooler, 4,500mm x 1,800mm x 800mm, 2,700kg	Forwards to crude oil storage (not included)
<b>Deethaniser</b>		
P9402A, P9402S	2x Weir Gabbioneta stabiliser LPG pumps, 3,200kg, 75kW, KCS	Forwards to E9406 deethaniser OVHD condenser, or Forwards to E9302 butane shell & tube cooler
E9406	Famet deethaniser OVHD condenser with 2x 3kW fans, 3 20kW winterising heaters	
V9402	Arsopi deethaniser OVHD accumulator, main vessel 1,800mm i.d., 5,400mm l, boot 400mm i.d., 1,100mm l, 9,390kg, KCS	Forwards through P9403A/S deethaniser reflux pumps to C9402 deethaniser column Forwards gas to V9903 LP fuel gas knock-out drum (not included) Boot forwards to P9616A/B degasser water pumps
P9403A, P9403S	2x Weir Gabbioneta deethaniser reflux pumps, 1,000kg, 18.5kW, KCS	
C9402	Arsopi deethaniser column including internals, 1,300mm i.d., 19,890mm l, 25,730kg, vertical with skirt	Forwards to C9403 depropaniser column Returns to E9406 deethaniser OVHD condenser Returns to E9405 deethaniser reboiler
E9405	Arsopi deethaniser reboiler, 500mm i.d., 4,665mm l, 2,950kg, KCS	
<b>Depropaniser</b>		
C9403	Arsopi depropaniser column including internals, 1,200mm i.d., 30,810mm l, 38,700kg, vertical with skirt	Forwards through E9409 butane rundown cooler to V9302A/B/C/D/E/F/G butane adsorbent beds Forwards to E9408 depropaniser OVHD condenser Forwards to E9407 depropaniser reboiler
E9407	Arsopi depropaniser reboiler, 520mm i.d., 4,731mm l, 3,150kg, vertical with lugs, KCS	
E9408	Famet depropaniser OVHD condenser with 2x 22kW fans	
V9403	Arsopi depropaniser OVHD accumulator, main vessel 1,500mm i.d., 4,500mm l, boot 400mm i.d., 1,100mm l, 4,600kg, KCS	Returns through P9404A/S propane product/reflux pumps to C9403 depropaniser column or to V9301A/B/C/D/E/F/G propane adsorbent beds Forwards gas to V9903 LP fuel gas knock-out drum (not included) Boot forwards to P9616A/B degasser water pumps
P9404A, P9404S	2x Weir Gabbioneta propane product/reflux pumps, 1,400kg, 45kW, KCS	Forwards to C9403 depropaniser column or to V9301A/B/C/D/E/F/G propane adsorbent beds
E9409	Famet butane rundown cooler, 4,250mm x 1,500mm x 500mm with 2x 3kW fans	Forwards to V9302A/B/C/D/E/F/G butane adsorbent beds

Liquified Gas Treating Unit (Unit 9300)		Request Process Flow Scheme 9300/08/001 to /002
<b>Liquid Propane Treating</b>		
V9301A,	6x propane adsorbent beds, 700mm i.d., 3,100mm l, 2,200kg,	
V9301B,	KCS, vertical with half skirt	
V9301C,		
V9301D,		
V9301E,		
V9301F		
E9301	Arsopi shell & tube propane cooler, 128.2mm i.d., 4801mm l, 700kg, KCS	
<b>Liquid Butane Treating</b>		
V9302A,	6x butane adsorbent beds, 700mm i.d., 3,100mm l, 2,200kg,	
V9302B,	KCS, vertical with half skirt	
V9302C,		
V9302D,		
V9302E,		
V9302F		
E9302	Arsopi shell & tube butane cooler AES, 400mm i.d., 5765mm l, 2,100kg, KCS	
<b>Water Treatment</b>		
A9302	Scam TPE water softener unit	
T9303	Scam TPE biodispers tank	
P9303A,	2x Scam TPE biodispers dosing pumps	
P9303S	Forward to A9301 cooling water tower	
T9304	Scam TPE performax tank	
P9304A,	2x Scam TPE performax dosing pumps	
P9303S	Forward to A9301 cooling water tower	
A9301	Scam TPE cooling water tower with fan	
P9302A,	2x Weir & Gabbioneta cooling water circulation pumps, 22kW,	
P9302S	1,000kg Forward to E9301 propane cooler and E9302 butane cooler	
<b>Butane, Propane &amp; Off-spec storage tanks</b>		
V9201,	4x G&G International butane storage vessels, 8,000mm i.d.,	
V9202,	30,500mm long, 290,000kg, installed horizontally on a sandbed	
V9203,	and earth enclosed	
V9204		
P9201	Weir Gabbioneta butane export pump, KCS	
V9205,	3x G&G International propane storage vessel, 8,000mm inside	
V9206,	diameter x 30,500mm long, 290,000kg, installed horizontally on a	
V9207	sandbed and earth enclosed	
P9202	Weir Gabbioneta propane export pump, 5,000kg, KCS	
V9208	G&G International off-spec storage vessel, 8,000mm inside diameter x 30,500mm long, 290,000kg, installed horizontally on a sandbed and earth enclosed	
P9203A	Weir Gabbioneta off-spec LPG pump, 1,500kg, KCS	
P9203S	Weir Gabbioneta spare pump for P9204 & P9203A, 1,500kg, KCS	

Flare System		
P9204	Weir Gabbioneta flare knock-out vessel pump, 1,500kg, KCS	From E9301 propane cooler and E9302 butane cooler
V9209	Flare knock-out vessel, 2,200mm i.d. x 6,500mm l, 8400kg, horizontal	
V9210	LPG drain vessel, 900mm i.d. x 2,500 l, 1,500kg, horizontal	
V9303	Flare knock-out vessel, 1,700mm i.d., 4,000mm l, 4,100kg, KCS	
V9703	Arsopi flare knock-out drum, main vessel, 2,000mm i.d., 10,000mm l, boot 1,000mm i.d., 1,500mm l, 10,000kg, KCS, horizontal	
A9701	GBA flare stack, KCS	
P9703A, P9703S	2x Weir & Gabbioneta flare knock-out drum pumps, 4kW, 700kg, KCS	
V9904	ExHeat propane vaporiser, 257kW, KCS	From P9203A off-sec LPG pump
V9903	Arsopi LP fuel gas knock-out drum, 970mm i.d., 2,950mm l, 1400kg, KCS, vertical on legs	