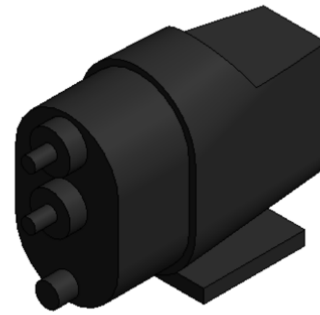


REVIT CONTENT GUIDE

Manufacturer: Grundfos
File: Pump-Multistage self-priming water booster
pump-Grundfos-SCALA1-Master.rfa
Type Catalog: Pump-Multistage self-priming water booster
pump-Grundfos-SCALA1-Master.txt
Rendering file: Not Applicable
Schedule file: Not Applicable



No. of types in family: 1 (PLEASE USE TYPE CATALOG)

No. of type in Type Catalog: 13

Loading and Placing into the Project

One “Mechanical Equipment” families and one type catalog file are supplied and types may be loaded into Revit through the use of the type catalog. Using the visibility settings of the view that is intended for placement, ensure that the Mechanical Equipment category is visible.

The product is a “Level Based” model that will stay oriented in the horizontal position when placed in the project environment. Grundfos families have been designed for ease of use with the pipe routing system supplied within Revit. To use this functionality, ensure that the mixing unit is connected to an existing pipe run.

Project Behavior

There are different types within the type catalog to allow for the family to be configured to different sizes and flow rates in order to meet specific needs. There is also an option within the family to change the plan view representation to an annotation symbol rather than a physical masking region representation.

The family contains pipe connections to allow for the user to plumb their mixing unit to the system. The connections also contain relevant data so that the connected pipe system can accurately calculate the flow through the mixing. The family also has an electrical connection that allows the family to be added to the systems circuit for load calculations.

Instance Parameters

In the “Instance Parameters” of the model the user has the following options to modify:

- Scala_Twin – Sets if the Scala object to “Twin” mode. Please use the correct type catalogs for this option.
- Show Annotative Symbol – For changing the plan view representation to an annotation symbol.
- Show Clearance Zone – Shows the needed clearance zones for the product.

A complete list of product specific product parameters are listed on the following pages.

Type Parameters

Because the mixing unit represents a manufactured product the type parameters within the family should not be modified for Standard configuration.

A complete list of product specific product parameters are listed on the following pages.

Visibility

For best performance within a project all model geometry is turned off in Plan View when placed in the product’s intended orientation. It is then represented by an annotative symbol (see Instance Parameters) that will be visible on the product it is placed in. For ease of use all geometry is assigned to the category Mechanical Equipment.

Rendering

When the family is loaded into a project standard Grundfos materials are imported. The materials may be modified, though ensure that the modified selection matches an actual manufacturer supplied option.

Family parameters

Instance Properties

Graphics	
Scala_Twin	<input checked="" type="checkbox"/>
Show Annotative Symbol	<input checked="" type="checkbox"/>
Show Clearance Zone	<input type="checkbox"/>

Type Properties

Example values from reference product.

Data	
CommissioningDate	0
CommissioningTechnician	0
DesignWorkingPress	0
DischargePressActual	0
DischargePressShutOffActual	0
Flow	3
FluidTempMax	45
FluidTempMin	0
FluidType	"Clean, fresh water and chlorinated water < 300 ppm"
FuseRating	0
Head	50
Maximum ambient temperature at maximum temperature of pumped medium	55
Maximum Operating Pressure	8
Maximum Operating Temperature	55
Maximum Speed	2850
Minimum operating temperature	0
MotorAbsorbedPowerActual	0
MotorAmpsActual	0
MotorVoltageActual	0
NPSHAvailable	0
OverloadSettingActual	0
Performance Data	http://product-selection.grundfos.com/product-detail.html?productnumber=99530403&custid=GMA
PipeSystemDynPressCALC	0
PreCommissioningITP	http://product-selection.grundfos.com/product-detail.html?productnumber=99530403&custid=GMA
PumpDutyEfficiencyMin	0
PumpDynPress	0
PumpDynPressActual	0
PumpFlowActual	0

PumpSpeedActual	0
Speed Type	Fixed
SuctionPressActual	0
SuctionPressShutOffActual	0
TotalPressShutOffActual	0
Dimensions	
Access Clearance Bottom	0
Access Clearance Front	0
Access Clearance Left	0
Access Clearance Rear	0
Access Clearance Right	500
Access Clearance Top	300
Discharge Connection diameter	25
Gross Weight	13,4
Impeller diameter	104
Net Weight	11,4
Shipping Weight	13,4
Size	45,54
Suction Connection diameter	25
Electrical	
Electric motor output	0,36
Enclosure Rating	X4D
Heat class	155°C max hotspot winding temp
Motor Type	Permanent magnet
MotorManufacturer	Grundfos
MotorWindingInsulation	F
SupplyFrequency	50
SupplyPhase	1
SupplyVoltage	230
Wattage	0,36
Green Building Properties	
Energy Technology List	Please refer to https://etl.beis.gov.uk/engetl/fox/live/ETL_PUBLIC_PRODUCT_SEARCH/search for further details
Environmental Product Declaration	Please refer to http://www.grundfos.com/products/product-sustainability.html for further information on Sustainability
Green Guide for Specification	Please refer to http://www.grundfos.com/products/product-sustainability.html for further details
Life Cycle Analysis	http://product-selection.grundfos.com/product-detail.html?productnumber=99530403&custid=GMA
Location of Manufacturer	Please refer to https://www.grundfos.com/about-us/career/our-locations.html for further details
Material Ingredient Reporting	Please refer to http://www.grundfos.com/products/product-sustainability.html for further information on Sustainability
Responsible Extraction of Materials	Please refer to https://www.grundfos.com/about-us/group-purchase.html for further details
Responsible Sourcing of Materials	Please refer to https://www.grundfos.com/about-us/group-purchase.html for further details
SustainabilityPerformance	Please refer to https://www.grundfos.com/about-us.html for further details
Identity Data	

AccessibilityPerformance	0
AssetType	0
Author	Grundfos
Category	0
Copyright	Grundfos Holding A/S
Description	Multistage self-priming water booster pump
ETIM Article Class	EC010737
Family Version	1.0
Function Code	1
IFCExportAs	IfcFlowMovingDevice
IFCExportType	IfcPumpType
Manufacturer	Grundfos
Manufacturer Website	www.grundfos.com
ModelReference	0
OmniClass	23-27 17 13
Product Documentation Link	http://product-selection.grundfos.com/product-detail.html?productnumber=99530403&custid=GMA
Product Literature	http://product-selection.grundfos.com/product-detail.html?productnumber=99530403&custid=GMA
Revit Version	2015
Uniclass2	PR_65_53_86_12
Watermarked By	Grundfos Holding A/S
Mechanical	
Number of Impellers	4
PumpImpellerSpeed	2850
Model Properties	
Application	0
Approvals	CE,EAC,AAA
AreaServed	Pressure boosting and domestic water supply
Configuration	Integrated
Connection Type	R
Custom	Catalogue
Design	Booster set
Drive Type	Integrated
Features	http://product-selection.grundfos.com/product-detail.html?productnumber=99530403&custid=GMA
Impeller Material	Composite
Internal Art. No.	99530403
Manufacturer Ar. No.	5,71383E+12
Material	Composite
Number of pumps	1
PowerSource	0
Product Line	SCALA1
Product Model Number	99530403
Product Range	SCALA1
ProductCode	SCALA1 3-25
Pump Type	Multistage self-priming water booster pump

PumpStandard	ISO9906:2012 3B
PumpWearRingMaterial	Stainless steel
SerialNumber	0
Shaft Material	Stainless steel
Shaft position	Horizontal
Shaft Seal Type	Carbon /ceramic
SiesmicRestraint	0
Switching frequency	Yes
Other	
6 Monthly	Please see service manual for up-to-date recommendations
Annually	Please see service manual for up-to-date recommendations
AssetIdentifier	0
BarCode	0
Bespoke Timeframe	Please see service manual for up-to-date recommendations
Casing Material	Composite
Client	0
Daily	Please see service manual for up-to-date recommendations
Designer	0
DurationUnit	0
InstallationDate	0
Installer	0
Maintenance Required 0-300hrs	Please see service manual for up-to-date recommendations
Maintenance Required 1001-2000hrs	Please see service manual for up-to-date recommendations
Maintenance Required 2001-4000hrs	Please see service manual for up-to-date recommendations
Maintenance Required 301-600hrs	Please see service manual for up-to-date recommendations
Maintenance Required 40001-8000hrs	Please see service manual for up-to-date recommendations
Maintenance Required 601-1000hrs	Please see service manual for up-to-date recommendations
Maintenance Required 8001-12000hrs	Please see service manual for up-to-date recommendations
Monthly	Please see service manual for up-to-date recommendations
O&M Manual	http://product-selection.grundfos.com/product-detail.html?productnumber=99530403&custid=GMA
Operating mode	0
Quarterly	Please see service manual for up-to-date recommendations
ReplacementCost	0
RFID	0
Warranty ID	0
WarrantyDescription	0
WarrantyDurationLabor	0
WarrantyDurationMonths	0
WarrantyDurationParts	0
WarrantyDurationUnit	0
WarrantyGuarantorLabor	0
WarrantyGuarantorParts	0
WarrantyStartDate	0